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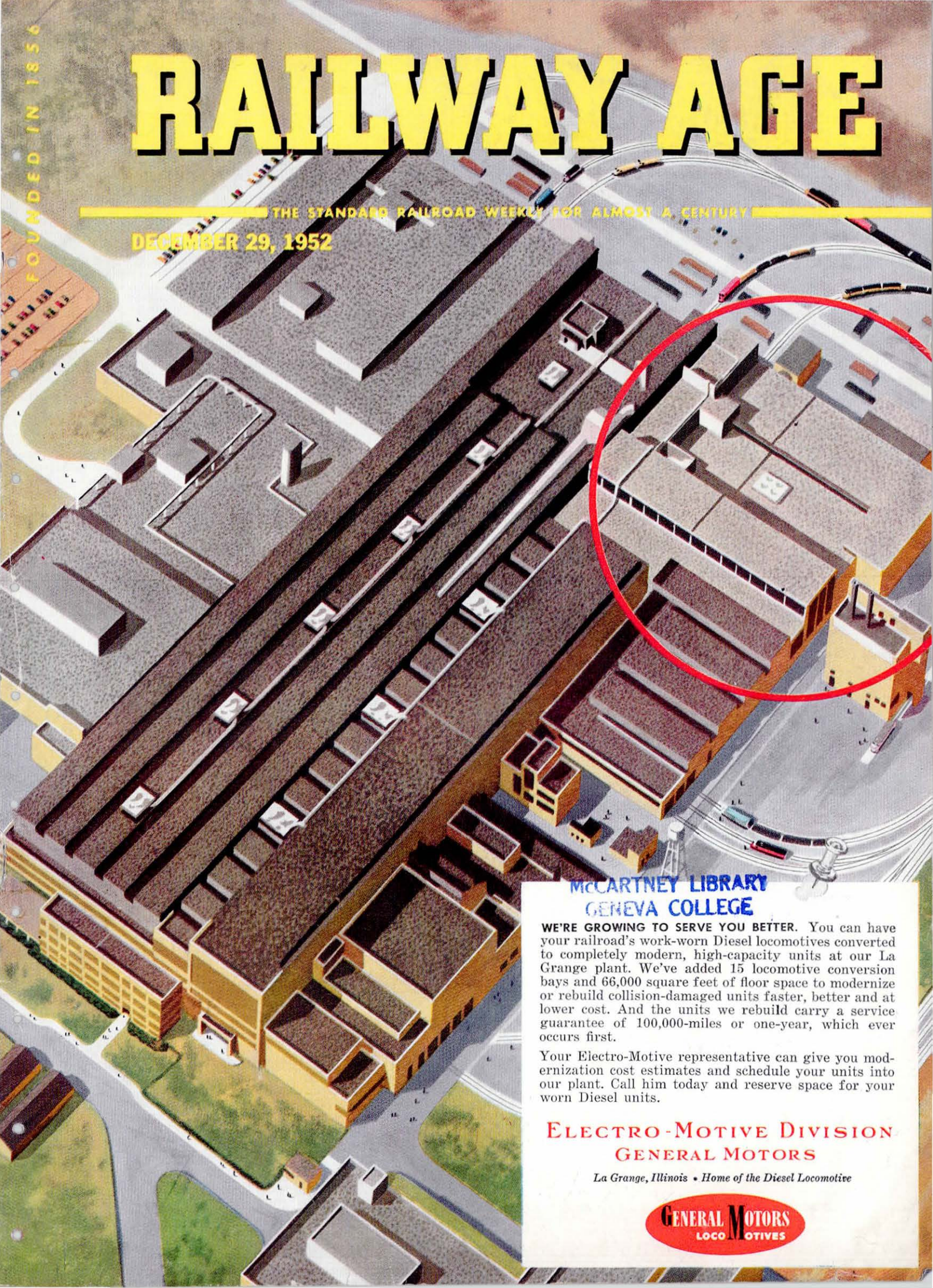
RAILWAY AGE

THE STANDARD RAILROAD WEEKLY FOR ALMOST A CENTURY

DECEMBER 29, 1952



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Your Electro-Motive representative can give you modernization cost estimates and schedule your units into our plant. Call him today and reserve space for your worn Diesel units.

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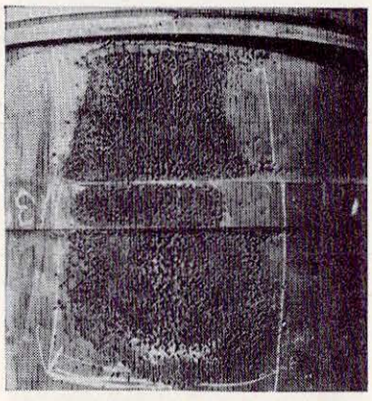
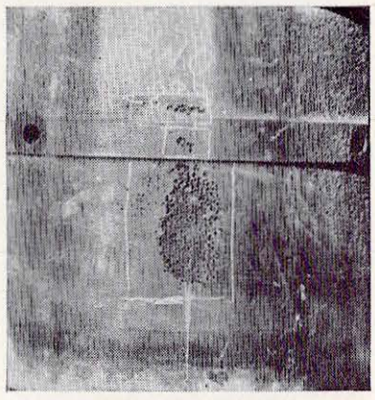
DEARBORN ANNOUNCES NEW

NON-CHROMATE

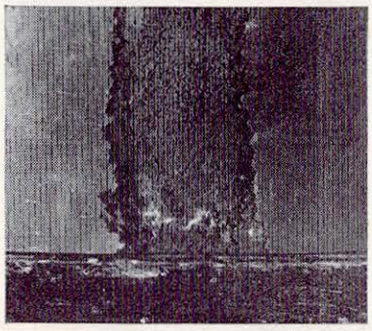
DIESEL COOLING WATER TREATMENT

Developed to Prevent Destruction of Valuable Diesel Engine Parts

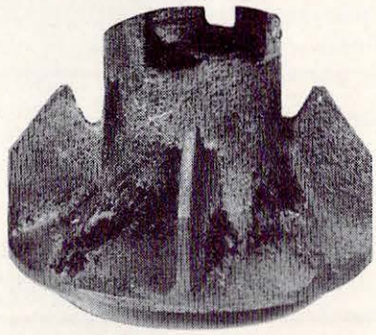




Unretouched photos show damage to cylinder liner caused by improperly treated cooling water. This erosion appeared after only six months'service.



Water side erosion of cylinder wall of large diesel engine.



Corroded impeller which required replacement after short service life.

Railroad men asked for it! Dearborn now supplies it! It's Dearborn's NEW, NON-CHROMATE DIESEL COOLING WATER TREATMENT No. 527. Completely safe, this new Dearborn treatment provides superior protection for all metals —*including aluminum*— that are found in diesel cooling systems.

Thoroughly Tested

Dearborn chemists began developing this non-chromate treatment five years ago. Today, after thorough research and exhaustive field tests by several prominent railroads,* Dearborn NON-CHROMATE TREATMENT NO. 527 is ready to help you reduce maintenance expense on your valuable diesel equipment.

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Position.....

Railroad.....

Address.....

City.....State.....

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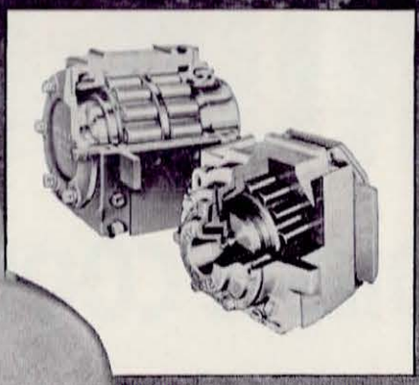
MATCHED DEPENDABILITY WITH HYATTS



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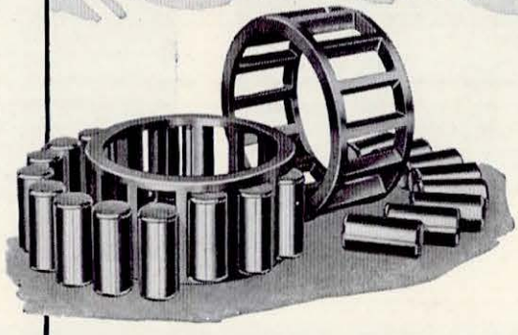

HYATT ROLLER BEARING JOURNAL BOXES

Vol. 133, No. 26 December 29, 1952

RAILWAY AGE

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Railway Signaling & Communications Car Builders' Cyclopedia Locomotive Cyclopedia
Railway Engineering & Maintenance Cyclopedia American Builder
Marine Engineering & Shipping Review Marine Catalog & Directory
Books covering transportation and building

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You can expedite traffic with safety . . . BECAUSE

1. For trailing moves against the closed point, the "Union" Mechanical Facing Point Lock retains all the advantages of the spring switch.

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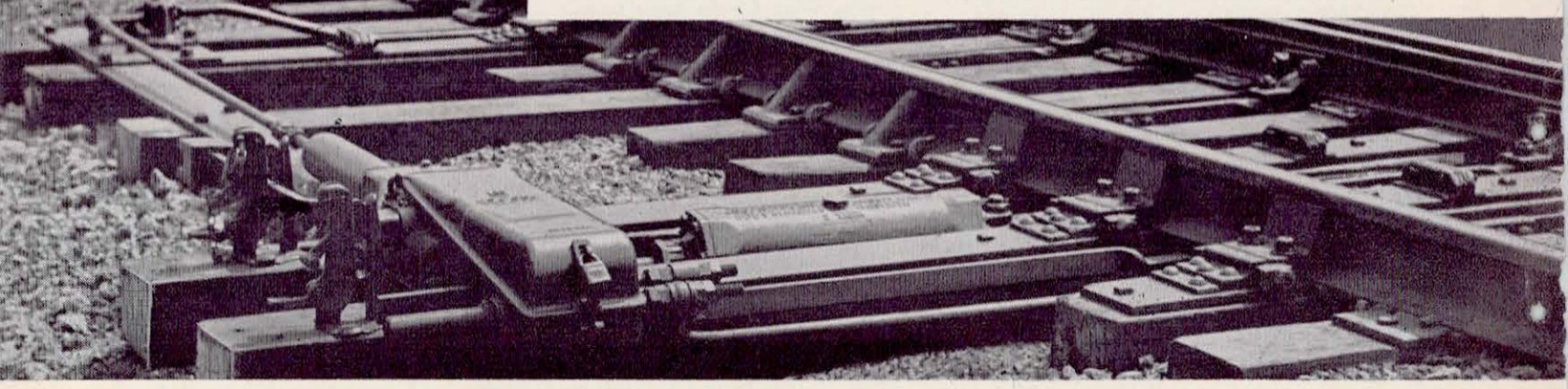
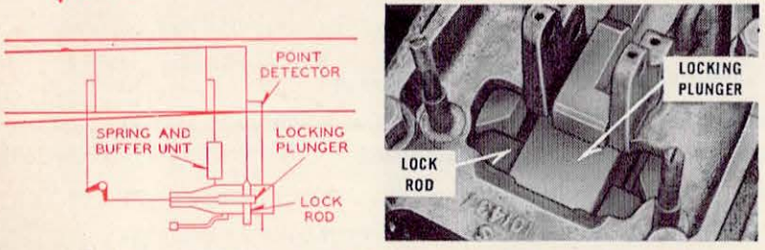
4. A built-in circuit controller for signal control checks that the switch is properly positioned and *locked.*

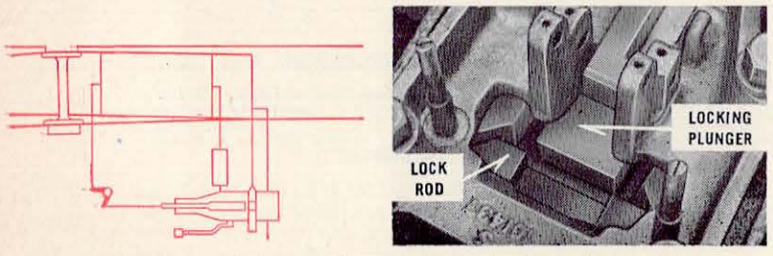
5. Through a point detector, the circuit controller continuously checks that the switch points are in the correct position and have not been damaged.



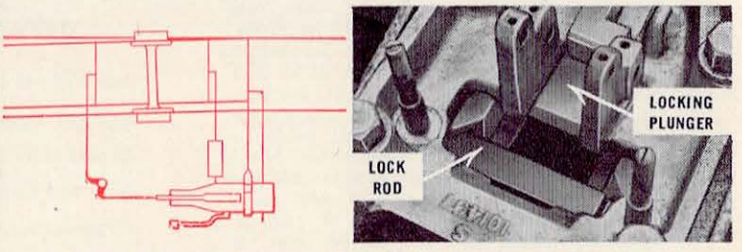
This is what happens . . . when a train trails a spring switch equipped with a "Union" Mechanical Facing Point Lock.



A. In the normal position of the spring switch, the standard lock rod is firmly engaged by the locking plunger of the Mechanical Facing Point Lock.



B. The flexing of the switch points by the leading wheels of the train automatically withdraws the locking plunger from the lock rod before the spring head rod starts to move.



C. As the train advances, the unlocked points are forced open against the spring action of the switch . . . and after the train has cleared the switch, the points are returned to normal and locked.

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DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY

SWISSVALE PENNSYLVANIA

NEW YORK CHICAGO ST. LOUIS SAN FRANCISCO

WEEK AT A GLANCE

CURRENT RAILWAY STATISTICS

Operating revenues, ten months	
1952	$8,738,353,866
1951	8,586,370,241
Operating expenses, ten months	
1952	$6,680,407,118
1951	6,700,217,593
Taxes, ten months	
1952	$1,052,093,753
1951	984,057,603
Net railway operating income, ten months	
1952	$ 853,008,994
1951	732,823,912
Net income, estimated, ten months	
1952	$ 594,000,000
1951	492,000,000
Average price railroad stocks	
December 22, 1952	70.38
December 26, 1951	53.33
Car loadings, revenue freight	
50 weeks, 1952	36,752,399
50 weeks, 1951	39,325,812
Average daily freight car surplus	
December 13, 1952	16,392
Decmeber 15, 1951	6,969
Average daily freight car shortage	
December 13, 1952	709
December 15, 1951	3,793
Freight cars delivered	
November 1952	5,929
November 1951	9,824
Freight cars on order	
December 1, 1952	87,657
December 1, 1951	129,158
Freight cars held for repairs	
December 1, 1952	96,085
December 1, 1951	88,911
Average number of railroad employees	
Mid-November 1952	1,238,688
Mid-November 1951	1,258,232

In This Issue . . .

ANOTHER GOOD YEAR for railroad suppliers—predicted as a strong probability on this page a few weeks ago—is even more definitely indicated in the year-end statement by A.A.R. President William T. Faricy, which is published in full on page 32. Very briefly, Mr. Faricy said that the railroads, during 1953, will continue their physical improvement program at just about 1952's near-record $1.3-billion level.

A BIG CONVERSION JOB—making over a steam locomotive back shop into a diesel heavy repair facility—has been accomplished by the Baltimore & Ohio at its Glenwood shops. The converted plant is the subject of a pictorial article which begins on page 38.

"ON THE SPOT!" That, says this issue's leading editorial (page 31) is where the country's business leadership is now, with respect to the chaotic conditions presently existing in the transportation industry. Gist of the editorial is that "business and industry are adequately represented" in the top ranks of the incoming national Administration; and that "the sincerity of the belief of Republican and business leadership in the principles of economic freedom will be put to the test in what they do about transportation." But, it concludes, "the railroads' duty is to see that the issue is clearly presented in the simplest terms, so that ignorance of the facts cannot be offered as an excuse."

TWO YEARS FROM NOW, if all goes well with material supplies, the Union Pacific will be operating a fleet of 25 gas-turbine-electric locomotives. Some of the lessons learned from its operation of a first experimental turbine unit, and of six similar units now in service, were recently outlined to the A.S.M.E. in a paper which is summarized beginning on page 44.

HOW TO GET MORE WORK FOR THE SAME MONEY in maintenance-of-way operations was the subject of a December 9 address to the New England Railroad Club by the Lackawanna's engineer maintenance of way, J. P. Hiltz, Jr. Although Mr. Hiltz's talk was briefly noted two issues ago, his precise four-point program was so deserving of more attention than could then be devoted to it in the news columns that a much fuller account of his talk is included in this issue, starting at page 33.

WHAT MUST BE an all-time record for speed in granting a freight-rate increase to compensate for higher costs was achieved in Canada on

WEEK AT A GLANCE

December 20 when the Board of Transport Commissioners authorized the railroads to boost their rates by 9 per cent to offset a 16-cents-per-hour wage increase to non-operating employees. To be sure, the wage increase has been made retroactive to September 1; the higher rates won't become effective until January 1. In effect, that's still a four-month lag. But the elapsed time between the filing of the rate-increase application and decision thereon was less than three weeks; hearings consumed only 1½ days. The B. T. C., admittedly, isn't always that fast, but as to its action in this case—American regulators, please note!

In Washington . . .

WHAT MAY BE A FAR-REACHING DECISION was rendered by the Supreme Court on December 22, in ruling that the I.C.C., in prescribing intrastate freight rates, "may give weight to deficits in the whole passenger-service revenue of the railroads involved." The decision seems to make it pretty clear that the justices took into account the desirability of considering railroad problems as a whole, rather than as a complex of individual and unrelated parts. The railroads, incidentally, won a legal victory of their own in securing final dismissal of the longstanding Lincoln antitrust case.

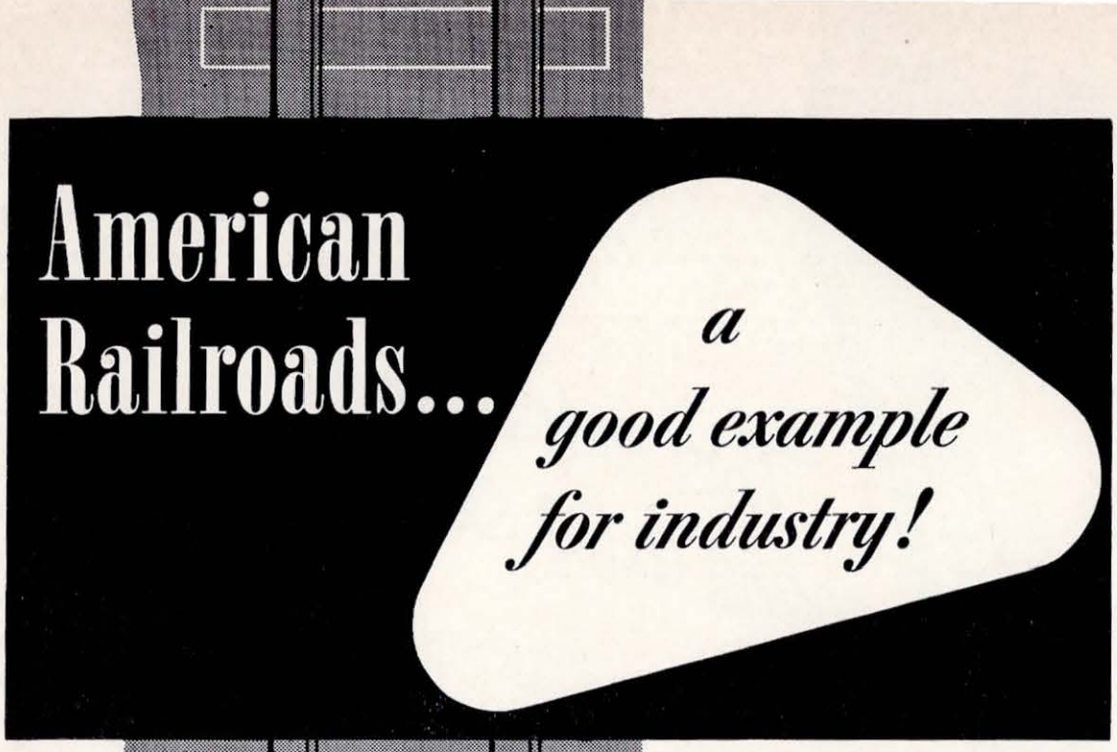
AS THE YEAR DRAWS TO A CLOSE, the freight-car situation in all parts of the country is "generally good," in spite of badly delayed deliveries of new cars, reports Arthur H. Gass, chairman of the Car Service Division. Mr. Gass' statement is fully borne out by the figures on the preceding page, which show that, for the second week of December, car surplus was approximately 23 times greater than car shortage. But the C.S.D. chairman anticipates "very heavy requirements" for some types of cars, at least, for the first half of 1953.

FIRST FULL-TIME CHAIRMAN of the 37-year-old Eastern Railroad Presidents Conference, as of January 1, will be David I. Mackie (above), who is leaving the legal vice-presidency of the Lackawanna to assume the new post. The move means "a major strengthening" of the conference's work in dealing with common railroad problems which "have become so numerous and so complex that they no longer can be handled on a volunteer basis." William White, present chairman of the conference, will become chairman of its newly created executive committee.

. . . And Elsewhere

MEXICO MAY BE THE FIRST COUNTRY to have a full-scale, commercial installation of the "Alweg" monorail system, described in *Railway Age* October 27, page 14. Initial installation, it is said, would probably be on a local basis in and around Mexico City, but there seems to be talk of possible future extensions to such points as Acapulco or Vera Cruz, or even Nuevo Laredo on the United States border. Swedish industrialist Dr. Axel Wenner-Gren, financial backer of the "Alweg" system, has substantial business interests in Mexico; hence that country would in many ways be a logical location for "Alweg's" first commercial application.

SPACE TRAVEL may or may not be responsible, but flying, according to the magazine Aviation Week, may be losing some of its glamor. At any rate, says Aviation Week, the aviation industry has been asked to cooperate "in reviving the attraction that personal flying used to have." And, it adds, the Civil Aeronautics Administration "plans a campaign to arouse the interest of American youth in flying." Anyone care to name any government agency that ever spent the taxpayers' money to "arouse interest" in railroading?



American Railroads... *a good example for industry!*

Regardless of rising costs, American Railroads keep a constant vigilance on the *quality* of their service. The comfort and safety of the public and the fast and safe shipment of goods *must* come first with the railroads.

So railroad presidents and management, *working closely with their chief engineers, are continuously improving standards*, adapting new techniques and modern machines.

For example: TODAY THERE IS A NEW CONCEPTION OF TRACK MAINTENANCE. *Most chief engineers approve it most heartily!* Progressive railroads have quickly adopted this new, *Matisa* standard of track maintenance—and *more* demands* are being made daily on *Matisa* to ensure better track for '53!

Manufacturers who follow the principle that *a firm is no better than its product* realize the value of maintaining high quality —just as railroads know that "*a railroad is no better than its track!*"

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* Matisa's Sales Progress Report *proves that more and more railroad presidents are looking to their chief engineers for track maintenance equipment to ensure operating economy as well as quality. If you would like a copy of this report, write us.*

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This message appeared in the Wall Street Journal

this extra safety means extra savings, too!

It's practically an engineering axiom that the fewer parts you have, the less chance there is of something going wrong. That's why *simple, one-unit construction* is one of the big advantages of the new ASF No. 18 Hanger-Type Brake Beam.

Here's just one rugged casting that does the work of the 8 or more conventional parts! Nothing to work loose and drop off. Fulcrum, heads and end supports . . . all are completely integral and cast with extra thick metal sections to set a new standard in strength.

The result is a high margin of safety in freight car operation. More than a billion car-miles with the ASF Cast-Steel Unit Beam prove it!

Simple, rugged construction leads inevitably to easier and lower-cost maintenance, as well. With no laps, welds, joints or rivets to loosen or flex, properly aligned levers and rods *stay* aligned —stopping false piston travel before it starts.

Let a qualified ASF Representative give you the facts on this new brake beam . . . find out how easy maintenance and faster servicing can make important savings in your costs per car mile. Write us today.

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International Equipment Co., Ltd., Montreal 1, Quebec

Here's what YOU can expect from the new ASF CAST-STEEL, HANGER-TYPE BRAKE BEAM

One-Piece Construction—Simple and rugged. Integral fulcrum and heads eliminate the usual 32 or more parts per car.

Longer Life—Extra thick, extra strong sections and heads. No elements or crevices to encourage corrosion. This beam *stays* strong.

Greater Safety—ASF Beam design virtually eliminates failures. There's nothing to work loose and drop off.

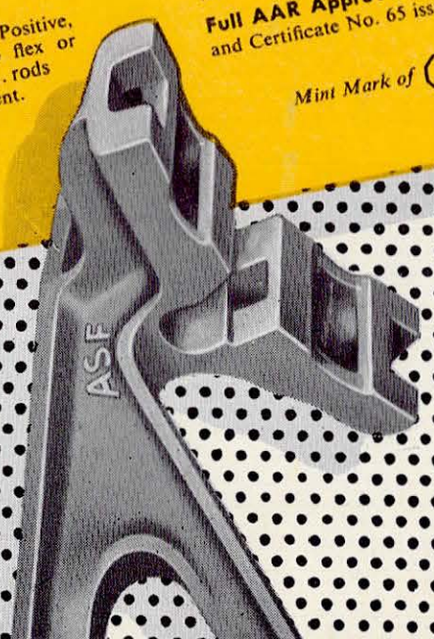
Lower Maintenance Costs—Positive, rigid construction; nothing to flex or open. Fulcrum stays in place . . . rods and levers remain in alignment. Reset piston travel only for brake shoe wear.

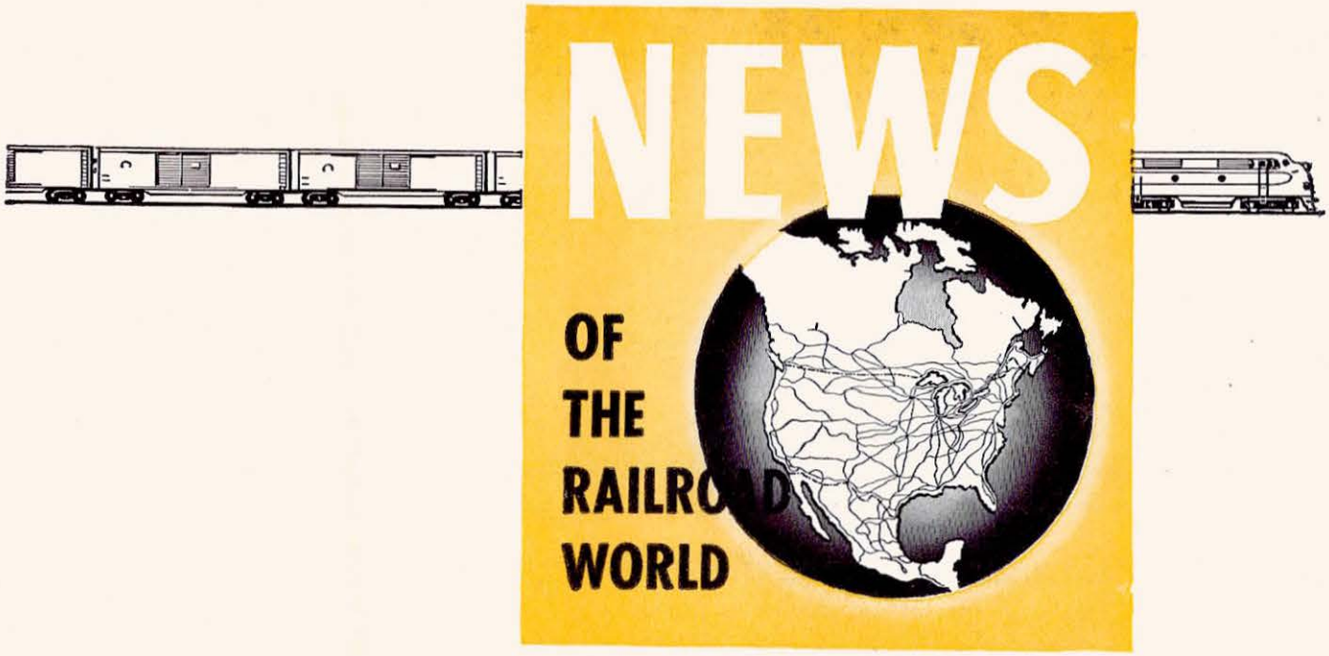
Faster Reclamation—Worn pin holes and surfaces easily built up by welding. Simply weld on new facings to renew burned heads.

Minimum Deflection—Typical at 18,000 lbs., .055"; at 30,000 lbs., .090". Set after 30,000 lbs., .001". Figures are far under AAR minimums.

Full AAR Approval—Tested and approved—and Certificate No. 65 issued.

Mint Mark of ◯ *Fine Products*





David I. Mackie Named First Full-Time Chairman of Eastern RR Presidents Group

Plans for a major strengthening of the work of the Eastern Railroad Presidents Conference have been announced by William White, chairman of the conference and president of the New York Central. For the first time in the history of the 37-year-old group, a full-time chairman will be employed to direct the activities of the conference and coordinate its work in all fields affecting Eastern railroads, Mr. White said.

David I. Mackie, vice-president and general counsel of the Delaware, Lackawanna & Western, has been named to the new office, Mr. White announced. He will resign from the Lackawanna and assume his new responsibilities January 1. At the same time the conference is appointing an executive committee, of which Mr. White will be chairman.

"Problems affecting the future of Eastern railroads have become so numerous and so complex that they no longer can be handled on a volunteer basis," Mr. White said. "The real danger facing railroads necessitates a vigorous and positive program that will reverse a trend that has ultimate threat of nationalization. Mr. Mackie's successful record in the law and railroading makes him well qualified to direct the new policies set by the conference."

One of the most urgent problems facing railroads, Mr. White stated, is substantial revision of national transportation legislation. He pointed out that a number of laws which treat railroads as a transportation monopoly require modification to recognize the highly competitive conditions existing in the transportation industry today. "Antiquated laws regulating railroads are depriving our stockholders and bondholders of an adequate return on their $26 billion investment in the nation's railroads," he said. "To permit this situation to continue, works not only to the disadvantage of our investors, but also our employees, shippers and the general public. When this mutuality of interest is understood by all groups, we anticipate that Congress will recognize the inherent danger of a national transportation policy that could lead to nationalization of the railroads and eventually to other important segments of our economy."

The activity endorsed by the conference will mobilize efforts by rail, business and agricultural groups to work towards revision of several transportation laws in the 83rd Congress, Mr. White said. He pointed out that railroad management was gratified over growing public concern with transportation problems generally, and expressed the opinion that the nation's indirect transportation bill, as represented by subsidies, and tax-supported facilities for highway, air and waterways, eventually could be reduced.

"Eastern railroads," Mr. White said, "are greatly encouraged by growing evidence that the public is aware of the many pitfalls and costs in the present laws and regulations that favor some segments of the transportation industry while restricting others. Because the situation is one that affects all of the public we plan to encourage further public study and understanding of the entire transportation problem."

Through Mr. Mackie, the conference, which has offices at 143 Liberty street, New York City, will continue to work closely with the Association of American Railroads and with the Western and Southern rail associations on all matters affecting railroads generally, Mr. White said. In addition, the conference also will continue to act as a clearing house on other matters affecting only those railroads operating in the eastern United States.

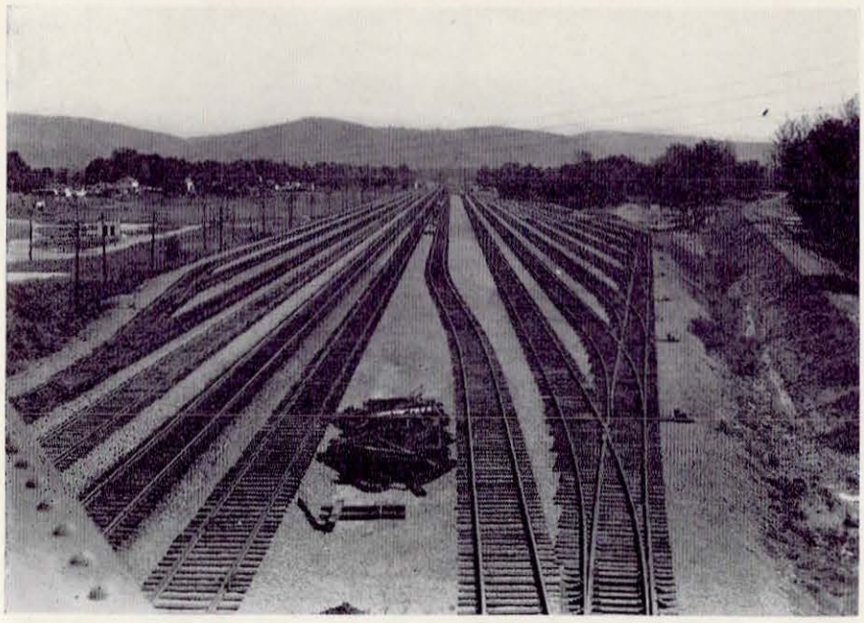
Wide Experience in RR Law

Mr. Mackie, whose picture appears on page 8, is a graduate of Groton School, Williams College and Harvard Law School. He entered the general practice of law in New York City in 1929 and joined the Lackawanna as general solicitor in 1945. A year later he was named general counsel and in 1950 was elected a vice-president.

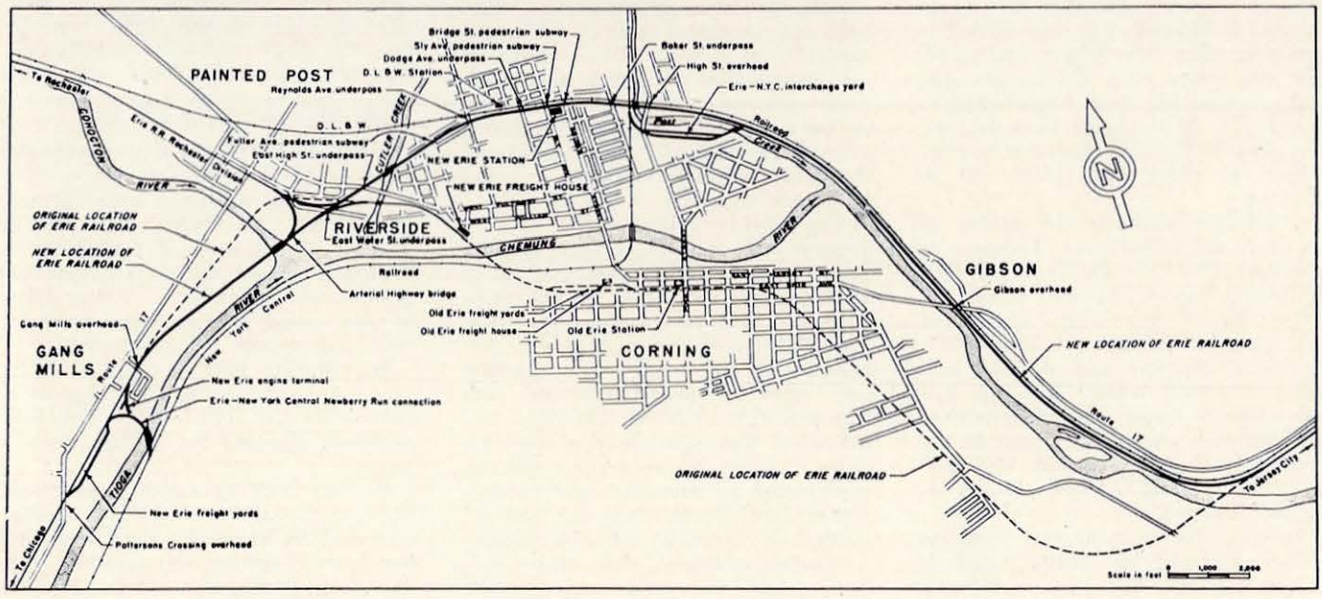
Mr. Mackie has for a number of years been active as an important participant in legal and legislative problems affecting the railroad industry.

He has been an active member of the law committee of the Association of American Railroads. Since 1946, he has been chairman of counsel of the Associated Railroads of New Jersey;

THE ERIE RELOCATES AT CORNING, N.Y. . . .



. . . in a $12-million project which involved seven miles of new line through the northern outskirts of the city, new passenger and freight stations, a new yard, and elimination of 25 grade crossings. The new station, functional as well as scenic in design, and served by wide driveways and a large parking lot, is shown above; the new Gang Mills freight yard, adjacent to the Tioga river, at the left; and the route of the old and new lines and other new facilities, below. The new passenger station makes generous use of glass, as a tribute to Corning's recognized leadership in the glass industry.



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The rate increase, which is to become effective January 1, 1953, is estimated to yield the railroads approximately $43 million per year. The higher rates apply to all freight except coal and coke, on which increases amount to 10 cents per ton, where existing rates are not over $1 per ton; 15 cents per ton where present rates are over $1 but not over $2 per ton; and 20 cents per ton where rates are now over $2 per ton.

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ment "does not intend to slacken its interest in and attention to possible antitrust law violations by railroads with respect to conduct which has not been approved and immunized by the I.C.C."

November Employment

Railroad employment decreased 0.76 per cent—from 1,248,178 to 1,238,688—from mid-October to mid-November, according to the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission.

The index of employment, based on the 1935-1939 average as 100, was 120.3 in November. This compared with 118.3 for October, and with 122.2 for the like month of 1951.

Between mid-October and mid-November, employment decreased in four of the seven employee groups. The largest decrease, 3.42 per cent, was in the maintenance of way and structures group. Other decreases were 0.40 per cent for transportation employees (train and engine service); 0.28 per cent for the professional, clerical and general group, and 0.10 per cent for transportation employees (other than train, engine and yard).

Increases during the 30-day period included a 0.34 per cent rise in the number of transportation employees (yardmasters, switch-tenders and hostlers); a 0.28 per cent increase in the maintenance of equipment and stores group, and 0.20 per cent among executives, officials and staff assistants.

Compared with November of last year, there were decreases in five of the seven groups. The decreases ranged from 4.28 per cent for transportation employees (other than train, engine and yard), to 0.45 per cent for the professional, clerical and general group. Increases during the year amounted to 2.21 per cent in the maintenance of way and structures group, and 1.21 per cent in the group embracing executives, officials and staff assistants.

Reduced Round-Trip Coach Fares Extended to June 30

Eastern railroads have extended to June 30, 1953, their reduced round-trip coach fares for small groups and families. The fares, originally effective from June 25, 1952, to October 22, had previously been extended to December 31, 1952.

Missouri-Kansas-Texas Union Shop Agreement

The Missouri-Kansas-Texas has entered a union shop agreement with 13 non-operating labor organizations which have contracts with the company, as briefly announced on page 13 of last week's *Railway Age*.

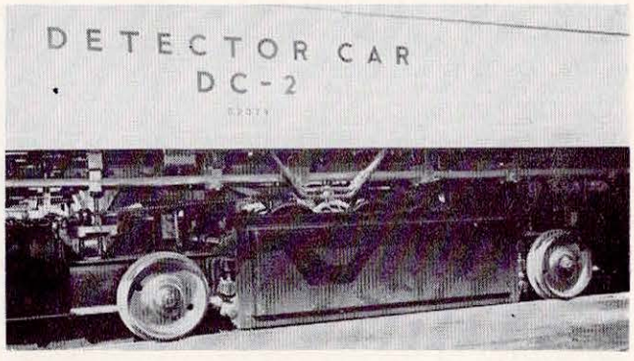
The new contracts become effective on January 1 and are similar to those currently in force on a number of eastern and a few western lines. They provide for a check-off of union dues, but this feature, being subject to future negotiation, does not become effective on January 1.

Class Rate Equalization Order Issued in Canada

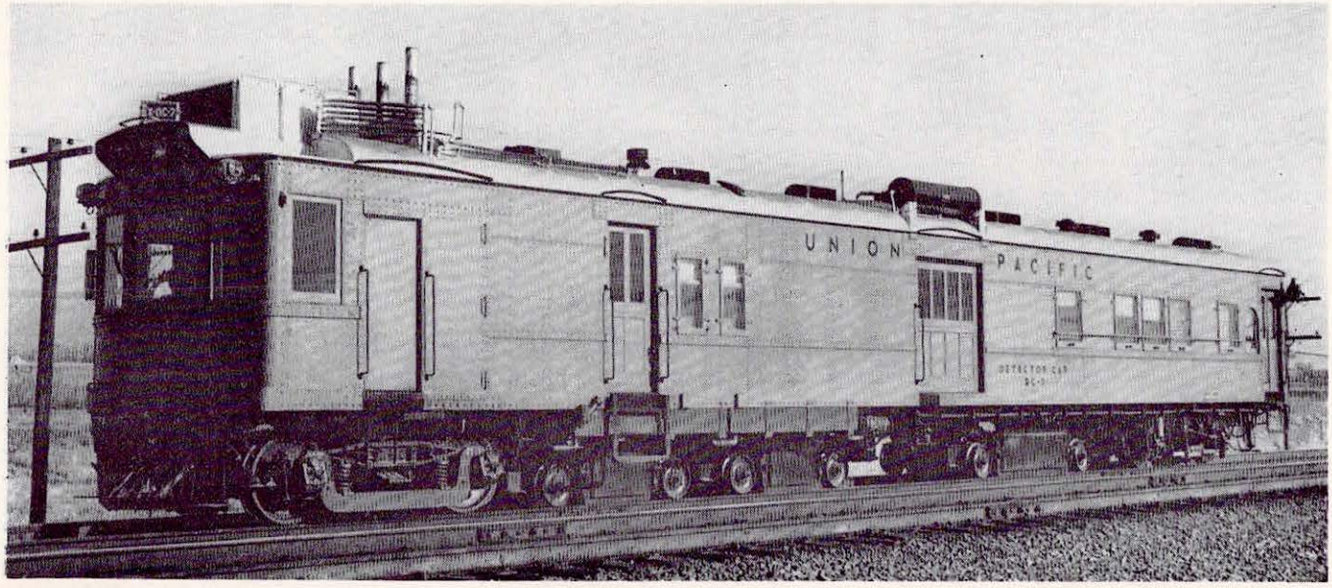
The Canadian Board of Transport Commissioners has taken the first major step toward equalizing freight rates across that country by issuing a tentative order to equalize existing class rates. The order said other rates would be dealt with later.

The judgment gives the board's opinion on how the various railway rate laws should be interpreted, and sets January 1, 1954, as the effective date of the new class rate scale, thus giving railways, provinces and shippers ample time to raise any objections they may have.

"The board's judgment and order lay the cornerstone for freight rate equalization in this country," a board



SELF-PROPELLED DETECTOR CAR designed and built by the Union Pacific to check rails for flaws. Smaller photograph shows detection unit.



official said in commenting on the action, which is the first direct move towards changing rate structures since a cabinet order to the board in 1948 set freight rate equalization as government policy.

Generally speaking, the order to equalize class rates will mean no changes in rates in mid-Western Canada. Rates will go up in the east, particularly in Ontario and Quebec, and down in the far west, especially in British Columbia. Class rates within the Maritime Provinces will not be changed. However, rates on some traffic moving to the Maritimes from other parts of Canada will go up.

Freight Car Loadings

Loadings of revenue freight for the week ended December 13 totaled 721,252 cars; the summary for that week, compiled by the Car Service Division of the Association of American Railroads, follows:

REVENUE FREIGHT CAR LOADINGS

For the week ended Saturday, December 13

District	1952	1951	1950
Eastern	125,840	126,612	136,456
Allegheny	144,123	154,350	159,553
Pocahontas	56,316	65,813	60,859
Southern	130,943	138,012	136,512
Northwestern	81,670	78,290	81,117
Central Western	122,444	126,745	132,706
Southwestern	59,916	63,372	65,928
Total Western Districts	264,030	268,407	279,751
Total All Roads	721,252	753,194	773,131
Commodities:			
Grain and grain products	46,783	51,350	53,508
Livestock	10,195	9,651	10,514
Coal	141,192	165,333	166,349
Coke	14,845	16,787	15,678
Forest products	43,844	46,696	47,591
Ore	21,102	18,155	14,583
Merchandise l.c.l.	70,771	70,344	79,236
Miscellaneous	372,520	374,878	385,672
December 13	721,252	753,194	773,131
December 6	719,159	773,530	766,895
November 29	670,167	821,776	740,165
November 22	810,922	711,447	701,551
November 15	828,723	814,258	837,458
Cumulative total 50 weeks	36,752,399	39,325,812	37,553,045

In Canada.—Carloadings for the 7-day period ended December 7 totaled 83,947 cars, compared with 95,284 cars for the previous 10-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada: December 7, 1952	83,947	30,496
Cumulative Totals December 7, 1952	3,917,409	1,651,263

Steel Shipments in First Nine Months of 1952

Steel manufacturers whose production represents virtually the entire domestic output of finished rolled steel products shipped 47,236,562 net tons of steel products during the first nine months of 1952, according to the American Iron & Steel Institute. The accompanying table presents a breakdown by market classification of steel shipments of 46,636,810 net tons of steel shipments during the first three quarters of 1952, and is based upon data furnished by the institute.

STEEL SHIPMENTS—NINE MONTHS, 1952

Market Classification	Net Tons	Percentage of total Shipments
Steel for converting and processing*	2,202,908	4.7
Forgings other than automotive	969,861	2.1
Bolts, nuts, rivets & screws	907,861	2.0
Jobbers	9,325,988	20.0
Construction, including maintenance:		
Rail transportation	65,952	0.1
Oil & gas	1,662,281	3.6
All other	3,735,363	8.0
Contractors' products	1,839,758	3.9
Automotive	7,191,644	15.4
Railroad rails, trackwork & equipment	1,185,839	2.5
Railroad cars & locomotives	1,569,991	3.4
Street railways & rapid transit systems	26,596	0.1
Shipbuilding & marine equipment	650,392	1.4
Aircraft	89,729	0.2
Oil & gas drilling	522,423	1.1
Mining, quarrying & lumbering	234,948	0.5
Agricultural	964,307	2.1
Machinery, industrial equipment & tools	2,677,522	5.7
Electrical machinery & equipment	1,108,862	2.4
Appliances, utensils & cutlery	916,860	2.0
Other domestic & commercial equipment	1,082,039	2.3
Containers	4,008,337	8.6
Ordnance & other military	1,407,586	3.0
Export	2,289,763	4.9

*Net total after deducting shipments to reporting companies for conversion or resale.

Waybill Studies

Additional waybill studies issued by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission, include the following:

Statement No. 5248, Mileage Block Distribution of Traffic and Revenue, by Commodity Class, Territorial Movement and Type of Rate, Products of Agriculture—All Terminations in 1951.

Statement No. 5249, Mileage Block Distribution of Traffic and Revenue, by Commodity Class, Territorial Movement and Type of Rate, Animals and Products—All Terminations in 1951.

Statement No. 5251, Mileage Block Distribution of Traffic and Revenue, by Commodity Class, Territorial Movement and Type of Rate, Products of Forests—All Terminations in 1951.

Five Brazilian Rail Men Studying Illinois Central

Five Brazilian railroad officers, the third such group to visit this country under a cooperative Point 4 project, have begun a three-month study period with the Illinois Central.

The tentative schedule of their activities includes visits to equipment suppliers after completion of their work on the IC. American supply and equipment manufacturers who would like to participate are asked to address correspondence and sample catalog pages to Carl N. Gibboney, assistant director for foreign economic development, Office of International Trade, Washington 25, D.C.

Members of the present group are Joaquim Capistrano do Amaral, director of the Division of Studies, National Department of Railways (D.N.E.F.); Orlando Frankel, chief mechanical engineer, Sorocabana Railway; Carlos Godoy, chief engineer, Railway Construction Division, D.N.E.F.; Carlos Mendes, director of the Administrative Division, D.N.E.F.; and Antonio Saraiva, chief engineer of the Section of Finance Control, D.N.E.F.

Briefly . . .

. . . The Boston & Maine's "Snow Trains," first operated in 1931, will again go into service to ski areas of New England on December 31. Again this year the B&M is promoting late spring skiing in its advertising and publicity programs. Last season the regular one-day Sunday "Snow Train" was operated through March 16 and, although the last trains were lightly patronized, there was such enthusiasm about the ideal skiing conditions at that time of year that the 1953 trains will run through March 22, if snow conditions are good.

. . . The Texas & Pacific is conducting tests with reflectorized highway crossing signs, following success with this type of sign on slow boards. For the highway assignment, the T&P is using a red background and white lettering "Railroad Crossing"—both reflectorized.

. . . The first Pennsylvania train to make the 350-mile trip from Philadelphia to Pittsburgh by rail arrived in the latter city December 10, 1852. The running time was slightly under 15 hours. "This," said one newspaper of that era, "truly is annihilating space and time." The consist of the train included four cars and a wood-burning locomotive. Through transportation between the two cities by rail and canal had begun in 1834.

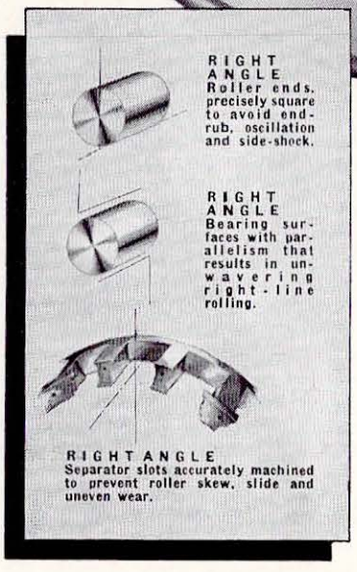
. . . A Budd RDC demonstrator is scheduled to go up to the Canadian Pacific late in January, to be tried out on selected lines.

. . . The Bangor & Aroostook for the third year put into effect, during the Christmas season, children's fares of 10 cents for a round trip between any two points on its lines. The fare, offered originally to enable parents in small northern Maine communities to take their children to larger shopping centers to see Santa Claus, made it possible for a child between the ages of five and 12 to make a 472-mile trip for 10 cents.

Tests Begun for Better Potato Loading Methods

A series of tests to determine better potato loading methods was begun recently by the Association of American Railroads in cooperation with the Bangor & Aroostook, the Maine Extension Service and Aroostook county farmers. Kail E. Rion, Northeast representative of the A.A.R., said the association hopes to make tests on 100 cars out of Aroostook this season.

With present methods, Mr. Rion (*Continued on page 48*)


RIGHT ANGLE
Roller ends, precisely square to avoid end-rub, oscillation and side-shock.
RIGHT ANGLE
Bearing surfaces with parallelism that results in unwavering right-line rolling.
RIGHT ANGLE
Separator slots accurately machined to prevent roller skew, slide and uneven wear.

Free running— even under adverse operating conditions . . .

In Diesel-Electric locomotive trucks where sun, engine room heat and hot blower air all conspire to raise armature bearing temperatures, Rollway Traction Motor Bearings offer a greater margin of protection under adverse operating conditions. Because, with Rollway Right-Angle design, the rollers, races and retainers are so expertly machined—so precisely square, parallel, true—that rolling friction and end-rub are practically non-existent, and heat effect within the bearings is kept at a minimum.

- Our engineers will gladly work with you in the solution of your bearing problems. Confidential consultation. No charge—no obligation.

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Complete Line of Radial and Thrust Cylindrical Roller Bearings

Current Publications

PERIODICAL ARTICLES

A Century of Progress in Louisiana, 1852-1952. SP Texas & Louisiana Lines Bulletin, October 1952. Texas & New Orleans R.R. Co., 604 Southern Pacific Bldg., Houston, Tex.

This year the Southern Pacific celebrates the 100th anniversary of its lines in Louisiana. This entire issue of their Bulletin is devoted to the history and development of the New Orleans, Opelousas & Great Western, second oldest line in the SP system, and original nucleus of the system lines in Louisiana.

The Rise and Decline of the Midwest Interurban, by John F. Due. Current Economic Comment, August 1952, pp. 36-51. Bureau of Economic and Business Research, College of Commerce, University of Illinois, 205 David Kinley Hall, Urbana, Ill.

This article traces the development, the economic significance, and the downfall of the midwest interurban.

Motorola Newsgram, September-October 1952. Motorola, Inc., 4545 Augusta blvd., Chicago 51, Ill.

This issue, designated as the "Railroad Issue," includes articles on growth of railroad radio, radio in yards and terminals, end-to-end radio, car checking with radio, radio on the Chicago South Shore & South Bend, and how radio speeded rehabilitation on the Rock Island.

PAMPHLETS

The Threat to our National Security. 44 pages. Research and Policy Committee of the Committee for Economic Development, 444 Madison ave., New York 22. Free.

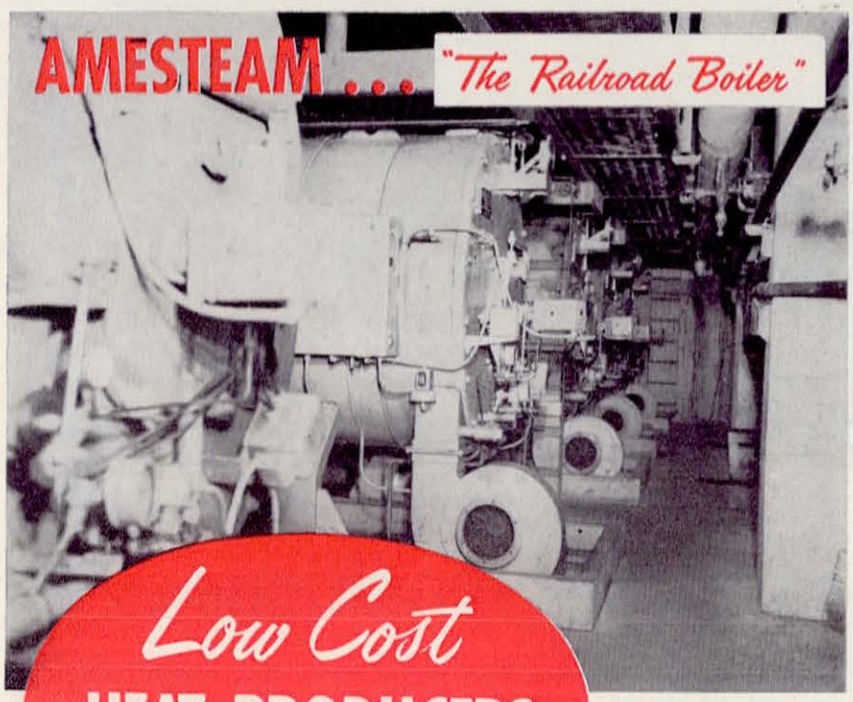
The C.E.D. poses three questions: (1) What is the nature of the external threat to American security and to the security of the free world as a whole, and how serious is it?; (2) what should be the broad goals and the more immediate objectives of our foreign and military policies?; and (3) what means—political, economic, military and psychological—can and should we use at home and abroad to meet that threat and move toward those objectives. This statement has been prepared in the hope that it will help Americans in their thinking about these and other central questions of U. S. foreign and military policy. Its purpose is not to try to answer these difficult questions, but rather to suggest *how to think about them.*

How to Tell Your Business Story in Employee Publications. 44 pages, illustrations. Chamber of Commerce of the United States, Washington 6, D. C. 25 cents.

"The employee publication . . . is a most effective medium for telling your business story. Surveys show that employees read these publications more often and more carefully, with greater interest and belief, than nonmanagement publications. . . . Consequently, more and more companies are using employee publications to tell their business story. For a very good reason, too—they're getting results." Starting from those premises, this pamphlet—which should be of special interest to editors of railway company magazines—is designed to help the company editor achieve 10 objectives: (1) Interpret company policies to employees; (2) keep employees informed about new company plans and developments; (3) promote employee cooperation and loyalty through better understanding of company problems; (4) explain the financial structure and operation of the company; (5) expose rumors that breed misunderstanding; (6) nullify harmful propaganda from anti-business sources; (7) promote an employee-company family concept of mutual aims and interests; (8) build a favorable attitude toward the company on the part of wives and children of employees; (9) foster friendly press relations; and (10) build community goodwill for the company.

Beef Bonanza in the Rich Glades Area of Florida. 16 pages, illustrations. Florida East Coast Ry Co., 16 E. 44th st., New York 17. Free.

A message to cattlemen on the advantages of shipping steers to the rich Everglades section of Florida for fattening on green winter pasture.



Low Cost
HEAT PRODUCERS
AT
N.Y.C.'s Stanley Shop

New York Central's pattern for progress in its modern new Stanley Diesel Shop at Toledo, Ohio, includes a battery of five compact, highly-efficient AMESTEAM Generators.

These close-coupled, fully-automatic units provide an unfailing supply of dependable heat and process steam at a cost that drives operational figures sharply downward. And that's the story on a host of roads, both large and small who are AMESTEAM users. The "Railroad Boiler" evaporates 15¾ pounds of water on 1 pound of fuel using No. 6 oil, provides better than 80% thermal efficiency. Accommodates oil or gas fuel. Single units available from 10 to 600 hp.

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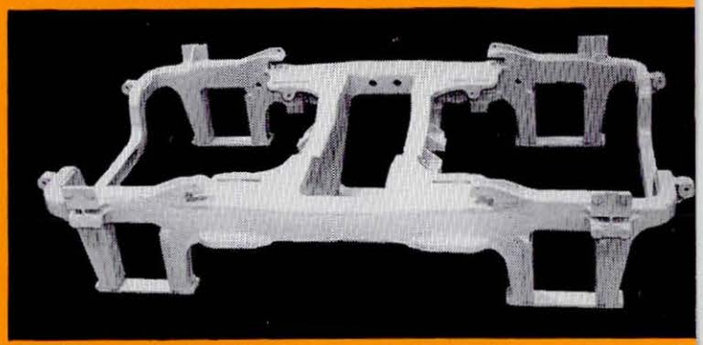
One-Piece Cast Underframe
for 70-ton Sulphur Cars

Slinging Sand
a Ton a Minute

Commonwealth Quality One-Piece Steel Castings...

Giant Speedslingers at the foundries of General Steel Castings, ram sand into molds with controlled hardness and uniformity. It is only one of many processes that result in the exceptional high quality and soundness of **COMMONWEALTH** one-piece cast steel products for railroad cars and locomotives.

The great inherent strength of properly designed one-piece steel castings, with metal distributed where it is needed most, substantially increases life of locomotives and cars, and lowers operating and maintenance costs.



One-Piece Four-Wheel Motor Truck Frame
for Diesel Switching Locomotives

GENERAL STEEL CASTINGS

GRANITE CITY, ILL. EDDYSTONE, PA.

The Long-bow was the Right Equipment at Crecy

In The Hundred Years War, the French were still fighting as they fought during the Crusades. Armored knights on horseback, armed with lances, formed the bulwark of their forces. But at the Battle of Crecy in 1346, the English introduced the terrible long-bow — a weapon unknown to the French. From the beginning, wave on wave of French knights fell under its dreadful might. This weapon, then unsurpassed in its military significance, slaughtered the French at Crecy . . . at Poitiers . . . at Agincourt . . . and was largely responsible for the ultimate English victory.

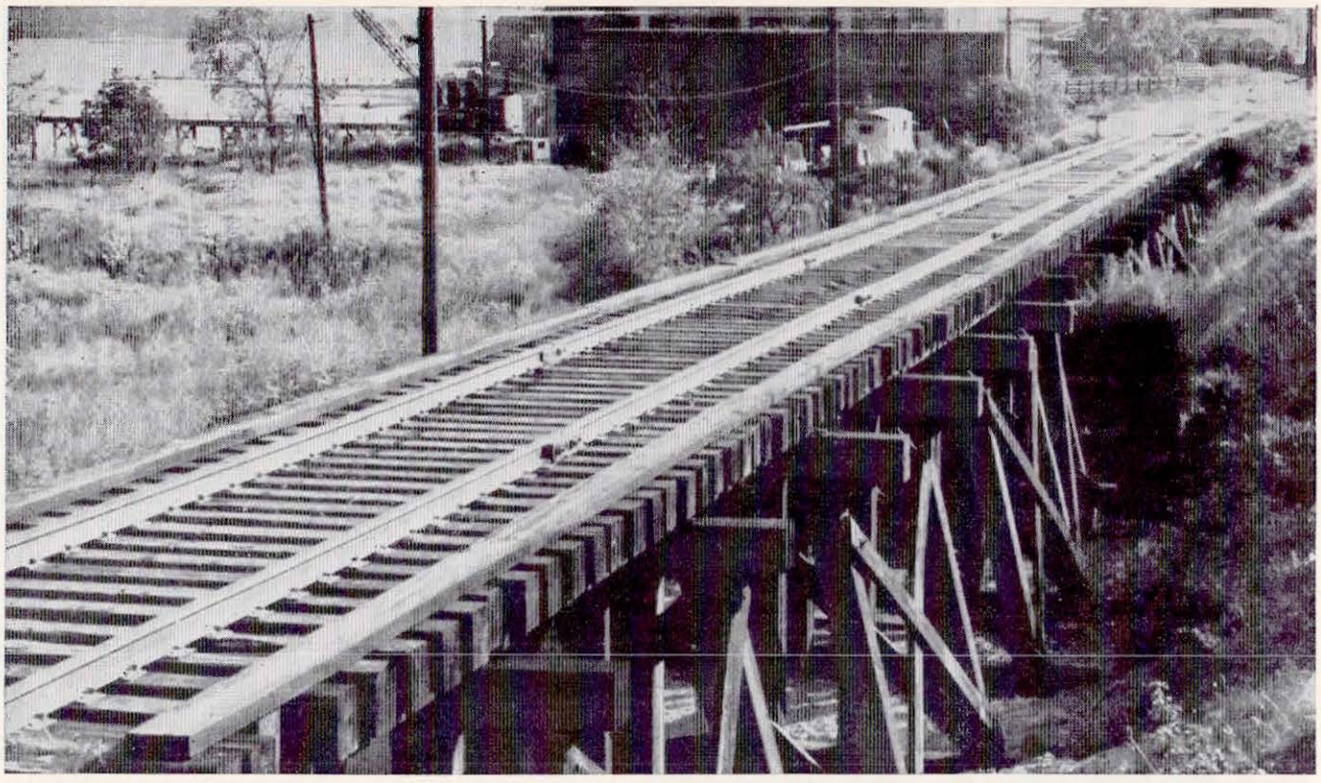
In any task, use of the *right equipment* is a major factor in doing the job *right.*

Since the end of World War II, the Norfolk and Western has spent and authorized $200,200,000 for new equipment and improvements to its transportation plant — powerful new locomotives, new freight and passenger cars, expanded engine terminals, a great new merchandise freight pier, improved track, offices, passenger stations, signal systems, bridges, yards and other facilities from one end of the line to the other.

Through constant research and improvement in equipment and operating methods, the Norfolk and Western strives always to provide better and more dependable railway service. Depend on it for the *right equipment* for the job.

N&W freight representatives are strategically located across the nation — to help you solve shipping problems. Their advice is yours for the asking. Call on them — they're as near as your telephone.

The DEPENDABLE Norfolk and Western Railway



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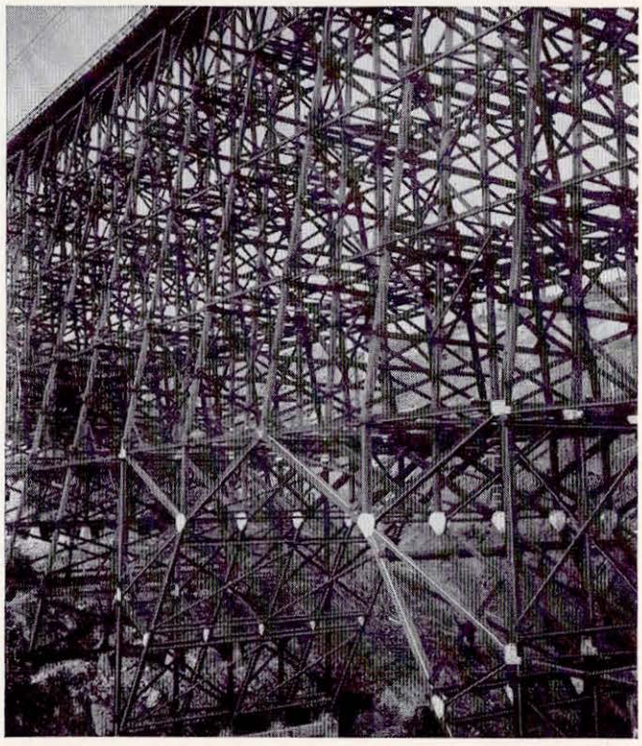
for long-time service at lowest total cost...

Low initial cost is only one of the points in favor of engineered timber bridges and trestles. Durability, safety, lack of excessive maintenance — these are other qualities which combine to provide long-lasting structures of genuine economy.

In fabricating bridges and trestles, Timber Structures, Inc. selects only high quality structural grade timbers. These are used in conjunction with engineered connecting assemblies and bracing systems which assure permanent, trouble-free construction. Approved preservative treatments which are available through Timber Structures, Inc. give lasting protection against the elements and eliminate the need for periodic painting.

Detailed information about these engineered structures is freely available and may be obtained by calling your nearest Timber Structures office; or use the coupon.



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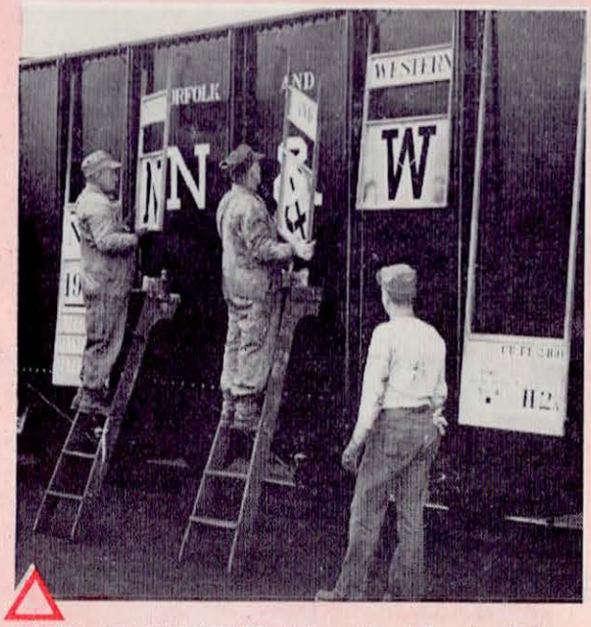
6,000 70-ton Hopper Cars built roll on Multiple-Wear

(1,000 ADDITIONAL NEW GONDOLA CARS IN 1952



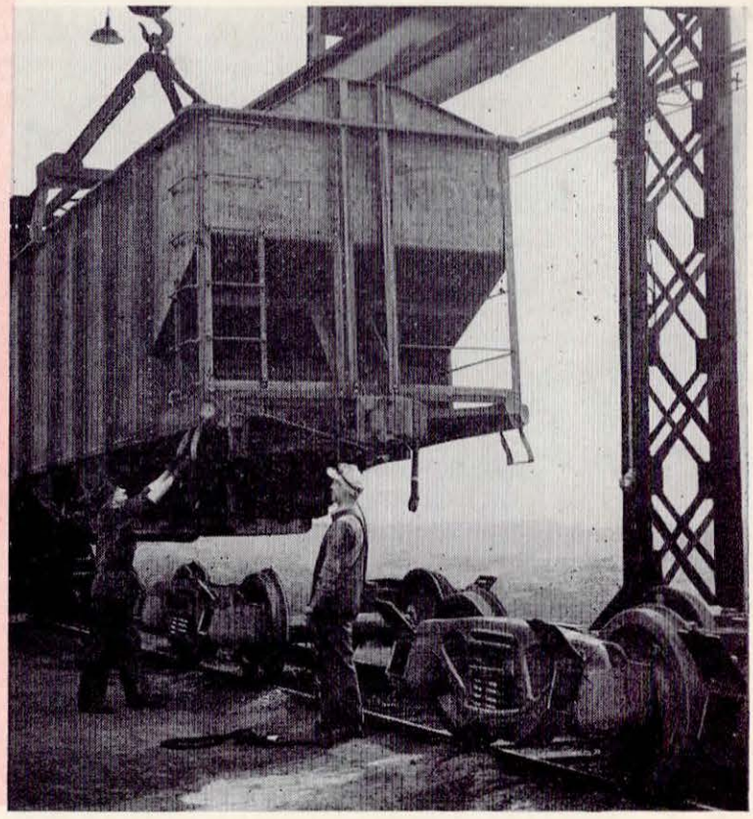
GETTING ITS MARKINGS. The information being stenciled on this completed hopper car makes quick spotting easier . . . and proudly identifies the car as another Norfolk and Western property.

THERE are years of dependable wheel service ahead for these heavy-duty cars built by the Norfolk & Western Railway Company in 1950, 1951 and 1952. A large proportion are equipped with long-lasting U·S·S Multiple-Wear Wrought Steel Wheels.

The ability of U·S·S Multiple-Wear Wheels to *last* is a matter of record. They have *proved* their staying power under the severest service conditions . . . have proved their ability to deliver *more ton-miles per dollar* than any other type wheel! And rugged U·S·S Multiple-Wear Wheels practically eliminate wheel maintenance . . . a factor of utmost importance today when maintenance and replacement costs must be kept as low as possible.

U·S·S WROUGHT STEEL WHEELS

One-Wear Freight Car Wheels
Multiple-Wear Freight Car Wheels
Passenger Car Wheels
Diesel Locomotive Wheels
Steam Locomotive Wheels
Electric Locomotive Wheels
Tender Truck Wheels
Electric Transit Wheels
Crane Track Wheels



HERE'S ONE of the N&W 70-ton hopper cars being assembled. Long-life U·S·S Multiple-Wear Wheels are a perfect match for the sturdily constructed hopper car body. This combination can be counted on for years of service with minimum time on the repair track.

by the Norfolk and Western Railway Wheels... good for the long run!

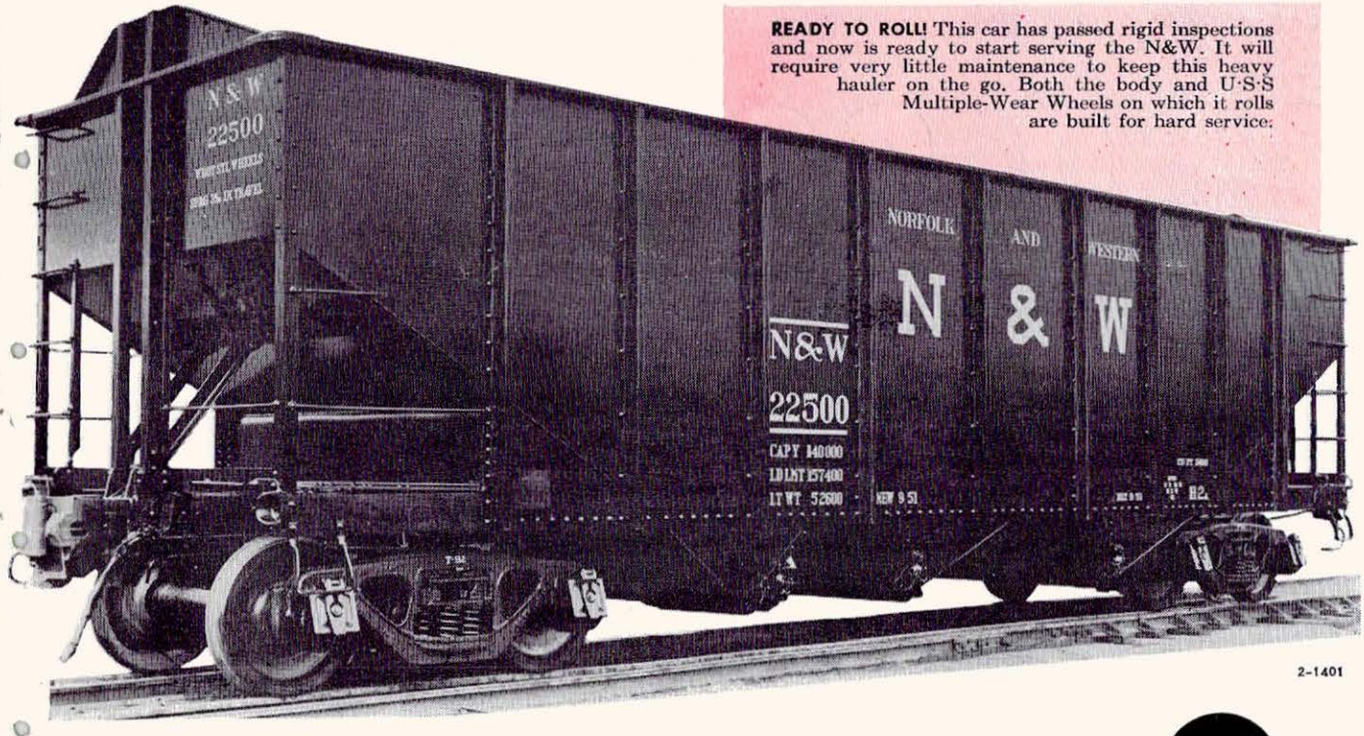
FOR THE N&W WILL ALSO HAVE MULTIPLE-WEAR WHEELS)

The outstanding strength of U·S·S Multiple-Wear Wheels is due to careful control in production. Manufactured by the first producers of rolled steel wheels, U·S·S Multiple-Wear Wrought Steel Wheels have experienced craftsmen carefully checking each step along the wheel production line to assure a product with great resistance to thermal cracking, a result of severe braking.

Another important reason why so many top railroads specify U·S·S Wrought Steel Wheels is their availability. There are two strategically-located wheel shops to supply the roads promptly . . . one at McKees Rocks (Pittsburgh) Pennsylvania, to serve the East and Southeast, and the other at Gary, Indiana, to supply Western and Southern lines. Both shops are equipped to turn out wheels that are either rim toughened or oil quenched.

No other manufacturer of wrought steel wheels can offer service like this!

So next time you order wheels for new equipment or replacements, get the wheels that offer you longest service at the lowest cost. Specify U·S·S Multiple-Wear Wheels.



READY TO ROLL! This car has passed rigid inspections and now is ready to start serving the N&W. It will require very little maintenance to keep this heavy hauler on the go. Both the body and U·S·S Multiple-Wear Wheels on which it rolls are built for hard service.

2-1401

UNITED STATES STEEL COMPANY, PITTSBURGH · COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO
TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA. · UNITED STATES STEEL EXPORT COMPANY, NEW YORK

USS

U·S·S WROUGHT STEEL *High-Duty* WHEELS

UNITED STATES STEEL

Why the

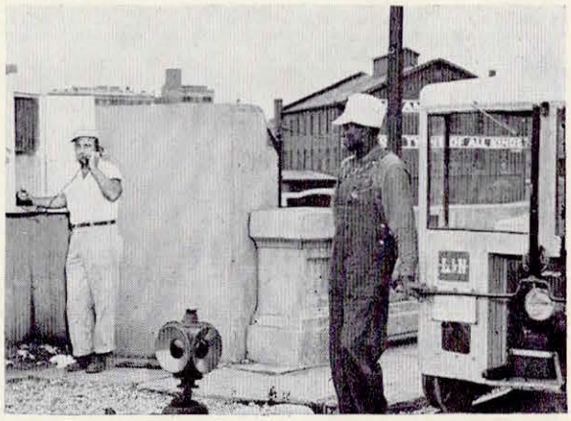
Stationmaster throughout the L & N System can be in direct contact with any key location in any division in seconds . . . by the turn of a P-A-X dial.

At terminals and along the right of way . . . throughout widely separated divisions where freight and passengers are "delivered on schedule" . . . the Louisville & Nashville Railroad Company's P-A-X Business Telephone network keeps thousands of miles of railroad operations under *direct* control—twenty-four hours a day.

The automatic P-A-X Telephone System, owned by the railroad, provides fast, dependable communication to all key points on the L & N. This complete telephone service maintains the fast pace of modern railroading—steps up work output all down the line. Department heads report working efficiency increased substantially . . . inventories reduced by thousands of dollars . . . operating control strengthened. Service to shippers and passengers is better and faster. And high-speed communication by P-A-X has proved to be priceless in emergencies!

P-A-X brings all employees within easy "hailing distance"—whether they work in adjoining offices or in different states! From Louisville alone, nearly 17,000 long-distance P-A-X calls are made and received each month.

While a shipper waits briefly on the city telephone line, the Superintendent of Transportation quickly gathers necessary information for him—over P-A-X lines.



With convenient P-A-X stations throughout L & N terminals, Maintenance Supervisors keep in close touch with maintenance crews through the P-A-X Telephone System.

by the Norfolk and Western Railway Wheels... good for the long run!

FOR THE N&W WILL ALSO HAVE MULTIPLE-WEAR WHEELS)

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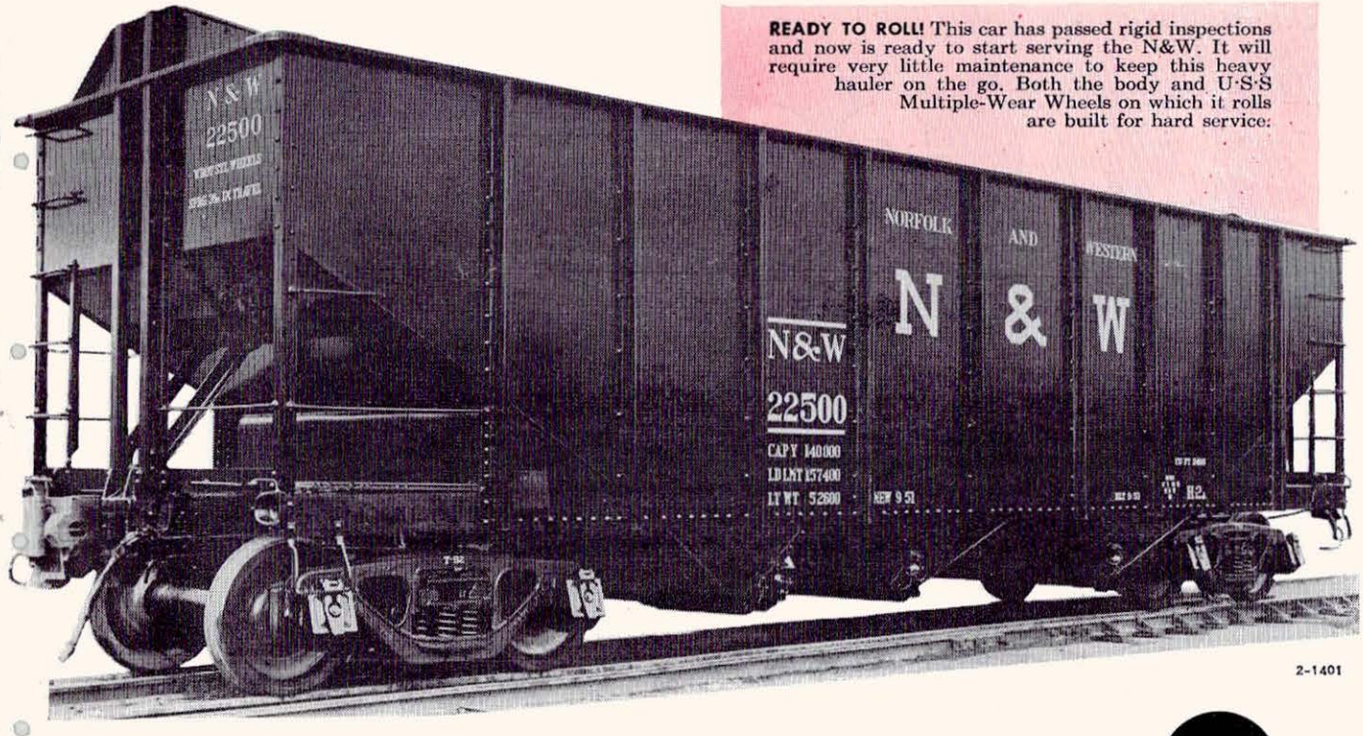

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UNITED STATES STEEL COMPANY, PITTSBURGH · COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO
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U·S·S WROUGHT STEEL *High-Duty* WHEELS

UNITED STATES STEEL

GO SLOW...

KEEP COOL

Speed up Classification and Humping Operations with

THRIFTY BALDWINS!

BALDWIN BLH LIMA-HAMILTON WESTINGHOUSE

Reading Co.'s multiple unit comprising two 1000-hp Baldwin-Westinghouse diesel locomotives in hump operation at Rutherford.

Rheostat for humping control mounted in cab, connected in the exciter field circuit.

With Baldwin Humping Control locomotive speeds can be reduced to as low as one mile per hour *with full throttle* to insure ample cooling for the traction motors. There's plenty of power to move heavy tonnages speedily to the base of the incline . . . plenty to push the load over the hump at the slow, even speeds required for efficient yard operation.

The Reading Company is using this humping control on 1000 and 1600-hp Baldwin switching locomotives in both single and two-in-multiple operation at its Rutherford, Pa., hump yard. Records show that the application of humping control to these two Baldwin locomotives resulted in an increase of about 15% in tonnage handled over the hump.

For information on what Baldwin Humping Control will mean in your hump yard, write Dept. 1001, Baldwin-Lima-Hamilton Corp., Philadelphia 42, Pa.

Engineman using rheostat to regulate locomotive speed and tractive effort while operating diesel engine at full throttle to keep traction motors cool.

BALDWIN-Westinghouse

DIESEL-ELECTRIC LOCOMOTIVES

...they're thrifty!

Why the

Stationmaster throughout the L & N System can be in direct contact with any key location in any division in seconds . . . by the turn of a P-A-X dial.

At terminals and along the right of way . . . throughout widely separated divisions where freight and passengers are "delivered on schedule" . . . the Louisville & Nashville Railroad Company's P-A-X Business Telephone network keeps thousands of miles of railroad operations under *direct* control—twenty-four hours a day.

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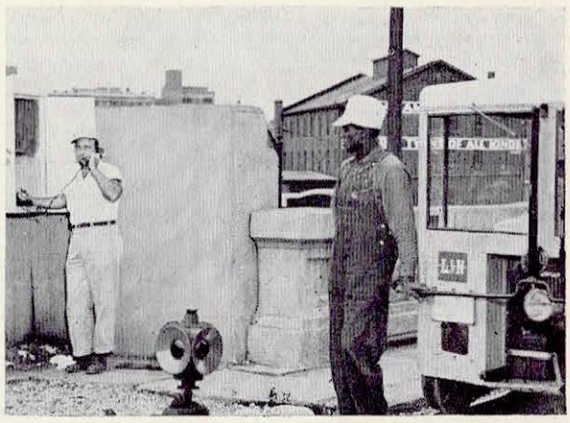
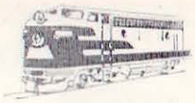


With convenient P-A-X stations throughout L & N terminals, Maintenance Supervisors keep in close touch with maintenance crews through the P-A-X Telephone System.

AUTOMATIC ELECTRIC — A GREAT NAME IN COMMUNICATIONS



L & N has its own system-wide telephone network

The L & N's telephones even reach many employees who are inaccessible through public telephone systems!

P-A-X is job-designed for railroads

Forty leading railroads throughout the nation are using speedy P-A-X Systems to streamline administration — control rolling stock — improve maintenance and service — tie all operations together through unified communications. Their P-A-X Systems meet the most exacting control needs of the railroad industry.

P-A-X is a system of "private" telephones, separate from the public telephone system. It is owned by the railroad and operated over railroad-owned circuits—wire, carrier or radio! It is completely automatic and establishes all railroad "inside" calls within seconds, at any time! P-A-X service permits marked economies in rental of commercial equipment . . . reduces telephone toll charges. Manufactured by Automatic Electric, originator of the automatic (dial) telephone, P-A-X equipment is equal in quality to the finest, anywhere!

Details of the L & N's P-A-X System are given in this booklet which shows how the L & N makes communications work *for it in lowering costs and stepping up efficiency. The L & N gave us the facts; we'd like to send them on to you! Write for this study—today!*

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Improvement Programs Will Continue in 1953 on 1952's $1.3-Billion Level

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President, Association of American Railroads

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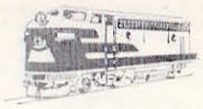

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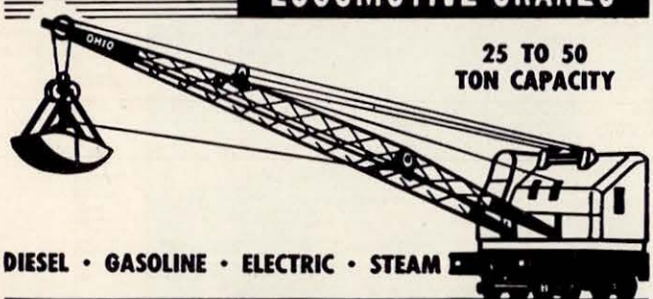

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Benchmarks and Yardsticks

HEREWITH ARE SOME "RESOLUTIONS," allegedly found written in the back of the timebook of a newly promoted locomotive engineer, some seventy years ago:

"WHEREAS, Having this day been promoted from the rank of fireman to that of locomotive engineer, and knowing that I thereby virtually take in my own hands many human lives and millions of dollars in property, be it

"*Resolved*, That I will never, so long as so employed, taste one drop of intoxicating liquor, to muddle my brains.

"That I will never, while so employed, visit a house of prostitution, a gambling house, dance house, or any place of debauchery that will rob me of my rest whatsoever.

"That I will never knowingly disobey orders.

"That I will never make out a false report to save any man's job, mine included.

"That I will never join a strike, except in the most aggravated case, and not then until arbitration has been tried more than once.

"That I will never believe I have learned it all, but will always try to learn from those below me as well as above.

"That the golden rule shall be my railroad religion.

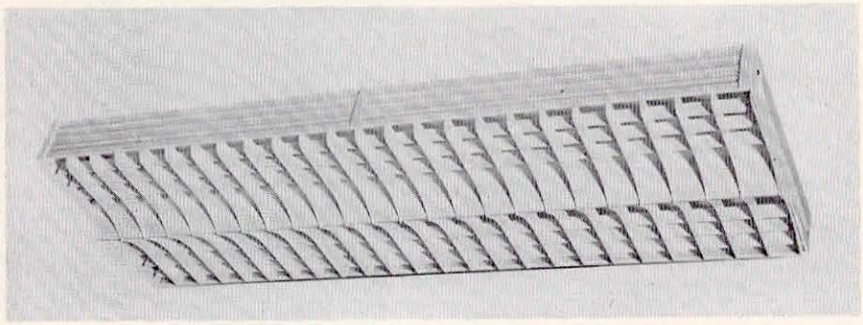
"That I will never strike stock if I can stop and avoid it.

"That I will always spend at least $15 per year for useful mechanical reading."

These "resolutions" were printed in *Railway Age* of April 3, 1884, which credits them to another magazine, "American Machinist." They are pretty good resolutions, if authentic, but somehow they are a little too near perfect—arousing your reporter's suspicion that they may be what some railroad writer or supervisor hoped locomotive engineers would think, rather than a truthful report of what some locomotive engineer actually set up as a guide to his conduct. That "$15 a year for mechanical reading matter" is the phrase that arouses our suspicions—who'd ever have thought of that one, unprompted by some practitioner of the writing craft? What do you think?

But, whatever may be the suspicions which the perfection of this list of resolutions may arouse—does the list really cover all the essential points, from a 1952 or a 1953 point of view? If not, what changes—omissions or additions—can be suggested at this season for making resolutions that would better serve to confront the temptations which assail a locomotive engineer today?

J. G. L.



Shallow Surface Luminaire

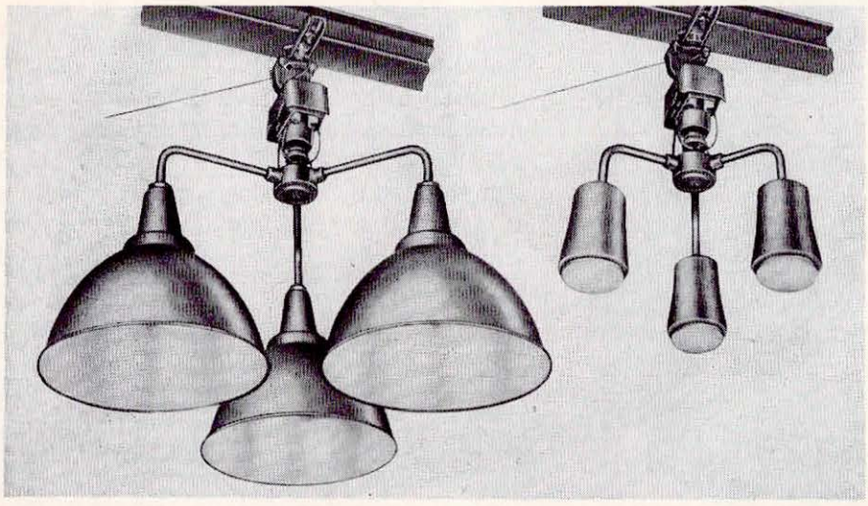
A shallow surface luminaire, type SC, 3 5/16 in. deep, is now being made by the Westinghouse Electric Corporation, East Pittsburgh, Pa. Available in 4-, 6-, or 8-ft. lengths, and 2 and 4 lamp widths, the luminaire can be used with a variety of slimline and standard fluorescent lamps. It is designed primarily for low ceiling areas. It may be mounted in rows or individually.

Translucent side panels eliminate the sharp contrast between bright luminaires and dark ceilings by emitting some light upward toward the ceiling.

The hinge-down louvers provide 35 deg. shielding both crosswise and endwise. It employs the new lead-lag ballast.

Ease of installation has been provided by a louver which hinges on both sides and by knockouts provided for off-ceiling mounting. Maintenance is made easier by the hinge-down louver and ballast location. The plastic side panels are easily dropped out for cleaning.

Although the luminaire has been designed primarily for low ceiling areas, it can be suspended in higher ceiling areas where a shallow suspended system will add to the attractiveness of the interior.



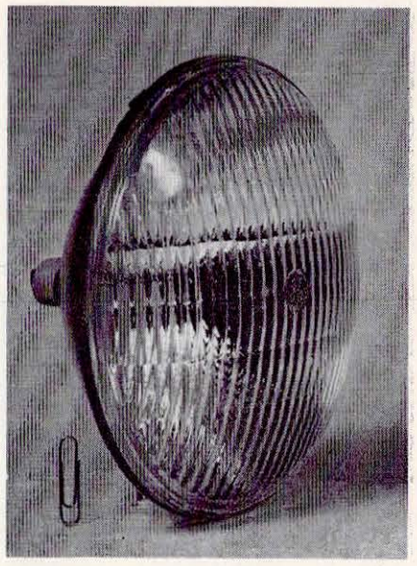
Lighting Cluster Lowering Suspension

The Thompson Electric Company, Cleveland, Ohio, has announced a new lightweight 3-lamp cluster suspension unit, designed for use with reflector lamp assemblies as well as conventional luminaires. Designated AL-8700, this suspension device will support three luminaires weighing up to 10 lb. each.

It is particularly suitable for industrial buildings. It provides increased lighting capacity without additional outlets.

The unit is all aluminum. Three ½-in. pipe-size tubes support the fixtures. These tubes, threaded at fixture connection end, are slip-fit and securely locked by set screws.

When used in conjunction with the Thompson 4-pole, 4-wire, 3-way disconnecting and lower hanger, it can be lowered to floor level quickly and easily for servicing of the luminaires. This type of installation also makes possible the use of either combination circuits with individual control of each light or combination mercury vapor-incandescent luminaires. The cluster also can be used with 2-pole hangers for applications involving incandescent lights connected in parallel.



300-Watt Sealed-Beam Floodlamp

The development of a new 300-watt PAR-56 flood lamp of the all-glass sealed-beam type has been announced by General Electric's Lamp Division, Nela Park, Cleveland, Ohio. Described as a precision lamp, its smooth, medium-spread beam is accurately designed on the principle of the automobile headlamp.

Prisms in the 7-in. lens cause a sharp cut-off of the beam, reducing spill light to a minimum.

The flood lamp is designed to fill many outdoor lighting needs and is also suited to interior applications. When used outdoors, a housing should be used to protect the bulb from rain or snow.

The lamp has a base of the mogul end-prong type. Designed for use in any burning position, it has a life rating of 2,000 hr. It is being made available initially in units which manufacturers of lighting equipment are producing for its use.

It will become available later for renewals through regular channels of distribution.

what is a vehicle?

A vehicle is a railroad car, an airplane, a bus, a street car—any means of carrying persons or objects

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Because Vapor's years of experience in this limited field mean top performance with quick, simple maintenance.

VEHICLE HEATING. That's Vapor's specialty. And it's unlike any other! Passengers' arms and shoulders may be less than 2" from sub-zero wind or boiling sun. Their feet rest on a floor separated from variable outside temperatures by only 6". All walls are "outside walls," and space proportions often inhibit efficient heat-distribution, yet all of these many complications are overcome by Vapor-engineered heating.

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TRANSPORTATION CHAOS PUTS BUSINESS LEADERSHIP "ON THE SPOT"

There isn't much doubt in anybody's mind that the incoming Administration is one wherein business and industry are adequately represented. There aren't any railroad men in the new cabinet, but the automobile people have no less than three representatives; other industries and finance are included, with able spokesmen.

With business leadership in such a position of prestige and power, it is impossible that present chaotic conditions in transportation can long endure, unless the nation's business leadership wants it that way. It is inconceivable that business leadership could be content with existing transportation conditions unless it is ignorant or misinformed about them; and, if such ignorance or misinformation prevails, then it's the job of the railroads to dispel it.

After January 20, American business leadership and the Republicans cannot escape responsibility for the kind of economic policies which are supported in Washington. The Republicans cannot, of course, be expected to correct overnight the accumulation of two decades of political activity, directed in considerable measure to the thwarting and chastisement of business leadership. The Republicans can and will be expected, however, to make immediately a vigorous and purposive beginning toward changing the direction of national economic policy.

There is no situation wherein national economic policy so completely violates every concept and principle of freedom of initiative and enterprise as in government treatment of transportation. The vigor or lack of it which the Republicans reveal in initiating corrective measures in this sector will be a test of their sincerity and competence. They are "on the spot"—a position which need not worry them if they are informed and their intentions are honest. But if they're unimpressed with the need for forthright and vigorous action at once, then bet on the Democrats for 1954. If the country is going to continue having semi-socialism in transportation—and subsidies and paternalism and minute regimentation of competitive service under the pretense that it's monopolistic —then by all means let's get our "planned economy" from those who are frank enough to admit what they're aiming at.

Some railroad men are afraid it'll be hard to induce the American people to notice or worry about the patches in the railroads' financial pants, now that the stock market is showing some interest in railroad securities. Maybe so. The patches are there just the same, and would be quickly revealed with a 25 per cent drop in national production and traffic.

But, in order to awaken Republican (and big business) leadership to their self-interest in reducing the volume of government intervention in transportation, it ought not be necessary to prove that the railroads are only a jump ahead of the sheriff, even though it's true. Government intervention in business should be objectionable to businessmen for other reasons than threatened bankruptcy. Government meddling is like any contagious disease. As long as it is allowed to flourish in transportation, it is a constant threat to all other business. Surely leadership of business and of the Republican party will be alert to realize this obvious fact—unless the railroads grow weary of repeatedly displaying their manacles and bandages, and permit the existence of these unsightly objects to be ignored.

"1953 will be the crucial year for the railroads"—such is the consensus of most people who have the right to an opinion. If the railroads can't get some relief from their more obvious impediments, from an Administration which is openly friendly to legitimate business enterprise, then it will be pretty plain that the industry isn't ever going to get this relief and had just as well begin to orient itself toward the public treasury. If there ever was an opportune time for an "all out" effort by the railroads to awaken the public, especially business leaders, to the chaotic folly of government behavior in transportation, that time is certainly now at hand.

What other business has to wait a year to adjust prices to rises in costs, as the railroads have had to do? Hence, what business can honorably fail to support the railroad demand that this "time lag" be cut to 30 days?

What other business is forced to continue producing merchandise that people will no longer buy, as the railroads are forced to run trains which practically nobody rides? What business, then, can withhold support of the railroads' request that this obligation of their's to provide unwanted service be modified?

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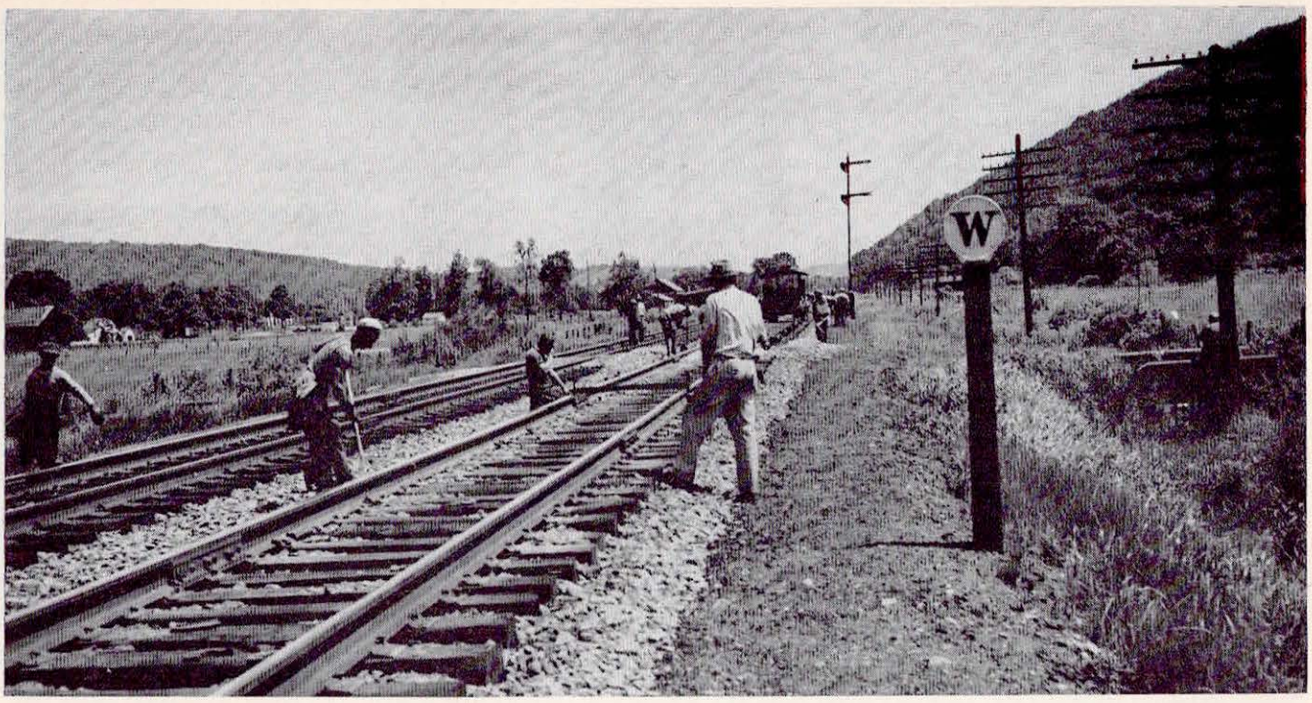


Always endeavoring to obtain greater production from its gangs, the Lackawanna is constantly experimenting with methods for increasing the efficiency of machines and labor.

In Maintenance of Way . . .

More Work for the Same Money

J. P. Hiltz, Jr., outlines a program for reducing costs through . . .

- ***Increased production from machines***
- ***Proper use of the best materials available***
- ***Most advantageous use of allotments***
- ***Programming of work on long-range basis***

If maintenance-of-way department officers had been told in 1945 that in the next six years the cost of performing work in their department would more than double and that they would be expected to maintain their properties in the usual manner with about the same amount of money that they had used in the past, there would have been few, if any, who would have agreed that this could be done. Yet it was done." So remarked J. P. Hiltz, Jr., engineer maintenance-of-way of the Delaware, Lackawanna & Western, in an address at a December 9 meeting of the New England Railroad Club in Boston (*Railway Age*, December 15, page 13).

After deploring pessimistic opinions concerning the future of the railroads, Mr. Hiltz said: "If railroad men display the same resourcefulness, ingenuity, and 'know-how' in the future that they have shown in the past, and if the railroad industry is given an even 'break' with competitors by various governmental agencies, the future of railroading is anything but gloomy."

Agreeing that "tremendous developments were made in maintenance-of-way machinery, which greatly reduced costs" in the past six years, the speaker questioned whether the maintenance-of-way departments of most railroads had reached the goal with regard to:

(1) Getting more production out of this machinery by improving it and using it in new and better ways, properly programming and scheduling it, and so maintaining it that "out-of-service" time is at a minimum;

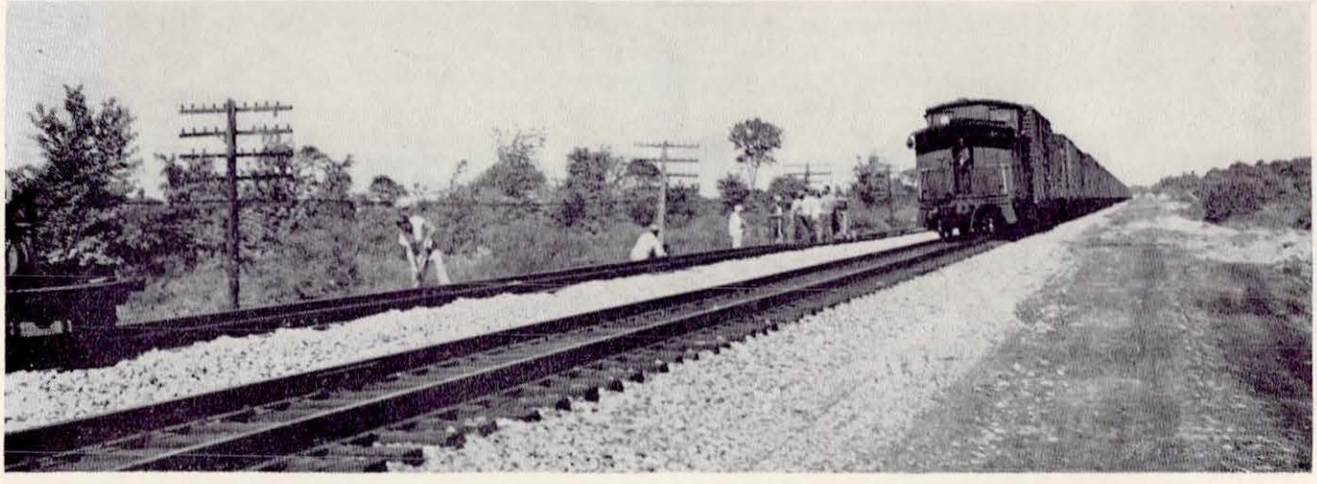
(2) Obtaining the best materials available, using them in the proper manner, and conserving them to the greatest extent after they have been put in use;

(3) Using the money allotted for maintenance to the best advantage of the property; or

(4) Selling management the idea that maintenance-of-way work must be done as long as a wheel rolls on the rails, that this work should be done at certain indicated times for the preservation of the property, and that it can only be done economically and properly if money is allotted to the department in such a manner that a competent supervision can work out long-range programs.

A large portion of the savings realized in maintenance work since 1945 can be attributed to the increased use of machinery, Mr. Hiltz added, but "I cannot agree that

When making a track raise on the Lackawanna, no tie is left in place unless it will carry its share of the load for at least seven years.



A standard practice on the Lackawanna, designed to promote the efficiency of its track forces, is to use the "detour" system when doing heavy track-maintenance work.

additional savings through the use of this machinery, or improvements thereof, cannot be made in the future. If all concerned are constantly conscious of and receptive to the need for improving this machinery and the methods of using it, increased savings through its use will result."

So that programs for the following year can be based on improved methods and increased production, he said, it is imperative that experiments be conducted while the present year's work is in progress. Some of the best suggestions for improvement come from the trackmen, he pointed out, and "it is of prime importance that higher supervision encourage these suggestions, be receptive to them, thoroughly analyze them, and put them into practice, if they have merit."

"At the rate at which track work is being accomplished today," Mr. Hiltz continued, "a division engineer, supervisor, or a foreman, must know well in advance the exact date on which he will receive a certain machine or be expected to accomplish a certain operation. With this knowledge, and with a predetermined force based on the program and schedule, he can accomplish the necessary preparatory work, arrange for the necessary materials to be on hand, and have the desired force available for the final operation. Unless the definite advice is given in an orderly fashion, inferior work or reduced production will result."

"We have acquired unprecedented amounts of expensive machinery," he continued, "without giving sufficient attention to acquiring the personnel and facilities to properly maintain it." As a result there have been breakdowns of machines and gangs have stood idle while they were being repaired. Breakdowns must be reduced to a minimum to get full benefit from the machines. "To accomplish this," the speaker added, "a well-organized maintenance-of-way subdepartment should be established. It should be headed by competent supervision with sufficient authority to accomplish its aims

One way to get more production from machines is to maintain them so their "out-of-service" time is reduced to a minimum. The Lackawanna provides trucks with servicing facilities for use by its mechanical repairmen.

and it should be furnished with the necessary facilities, equipment, and personnel."

Mr. Hiltz said further, "I am sure that if maintenance-of-way expenditures are analyzed, it will be found that each year the costs of materials represent a high percentage of the total. It is evident then that substantial savings could be realized if we obtained better materials, if we used them more advantageously, and if we practiced conservation while they were in use.

The speaker selected rail and ties for special comment because they account for major expenditures for materials. New rail, he said, should not be placed where speed is slow, due to grades or other restrictions, and where a high degree of maintenance is not required. "It would be far better," he said, "to put this rail in a high-speed location, even though the rail in this track is not worn out, and use the rail removed in the lower-speed territories. The proper programming of new and relayer rail is one of the most important of maintenance-of-way functions."

If available conservation measures for lengthening the effective life of rail are properly employed, declared Mr. Hiltz, rail can be allowed to remain in the track longer than in the past. Foremost among conservation measures is the proper maintenance of track surface, line and gage. End-hardening and rail-end welding will eliminate batter. Continuous welded rail has proved practical and economical in some locations and should receive careful consideration not only from the standpoint of increasing the rail life but also from that of reducing maintenance. The speaker noted that "frozen-joint" construction is now being developed to give some of the advantages of welded rail. The elimination of engine-driver burns and surface grinding to remove corrugations, bolt-hole crown and rail-end batter, are also effective conservation measures, he said.

"When economy is the watchword," Mr. Hiltz said, "renewal of ties receives careful attention. Under these conditions, if a tie has 'good neighbors' we are inclined to leave it in the track. If we do, how long will these 'neighbors' continue to be good? Each tie in track should be capable of taking its share of the load. If it cannot do this, its 'neighbors' must take over, with the result that the overload will shorten their lives."

The real field for exploration in tie conservation, Mr. Hiltz believes, "is in the selection of the tie, the curing of the wood, and the preservative process used. After consideration of all factors involved, including the present-day cost of ties, which is increasing rapidly, I believe American railroads should unite in insisting: (1) That ties of the proper type be furnished them, even though at a further increased cost; (2) that immediate measures be taken to insure an adequate supply of the proper grades of ties in the future; and (3) that extensive research be conducted to improve methods of curing and treating ties."

To achieve a perfect balance between labor and material, i.e., with the right amount of labor on hand for the materials available, and vice versa, with work programmed in natural sequence, is approaching perfection, Mr. Hiltz said, "but we must work toward this ideal. There is no practice in railroading today which is quite as inconsistent as the unqualified restriction by management of an item of material or a class of labor. Labor must have material with which to work, and material involves labor for its application and maintenance. The proper balance between them will result eventually in the lowest overall maintenance cost.

"The programming of jobs so that they follow in natural sequence is equally important. Considerable wasted effort can be eliminated by doing the right job at the right time. The establishment of well-conceived programs and schedules will go far toward eliminating this wasted effort."

Must Have Long-Range Appropriations

Mr. Hiltz declared that, "too often top management regards the maintenance-of-way budget as a well from which dippers full of funds can be drawn to meet other apparently more necessary expenditures. It is up to the maintenance men to convince them that it is far easier and cheaper to renew that one bad tie this year than have to renew it and its neighbors, which failed because it was not carrying its load, next year. Maintenance-of-way work must be done at the proper time if it is to be done at the lowest cost."

"In order to use money to the best advantage of the property, to balance labor and material, to set up a job sequence, to program and schedule operations, maintain machinery, or to establish a cycle of maintenance consistent with management's requirements," he said, maintenance-of-way supervision must set up long-range programs, i.e., for not less than one year and preferably longer. "Long-range programs cannot be established without long-range appropriations."

"It is certainly not consistent, economical, or contributory to good morale," he continued, "for a track supervisor to have 20 extra gangs in June, one in July, and 20 again in August. Yet this condition, with all of its evils, can and does exist under the monthly appropriation system. I don't believe there is a maintenance man who wouldn't rather accept a reduced budget provided he knew that he could depend on it and spend it as good maintenance practices indicated."

Mr. Hiltz then commented on the need for competent supervision, which he said "is the backbone of a maintenance-of-way department and will be more so in the future." He deplored the practice, when times are "tight," to cut down on supervision. These employees represent but from 4 to 7 per cent of the maintenance-of-way expenditures, he said, and they are worth that and perhaps more. "With regard to the competency of this supervision, I wonder whether we have given sufficient attention to the wages, working conditions, and prestige of our supervision so as to make the work sufficiently attractive to encourage additional competent men to join us."

C.T.C. Saves a Minute a Mile . . .

. . . on the average, for each L&N freight train on single-track segment of main line

Sidings have been modernized and centralized traffic control has been installed on a 64-mile stretch of single-track main line of the Louisville & Nashville between Calera, Ala., and Montgomery, which is part of the road's 922-mile through route between Cincinnati and New Orleans.

Result: Through freight trains get over the line in one hour less time, on the average, according to the dispatcher, and passenger trains, if late, can make up time without interfering with other trains.

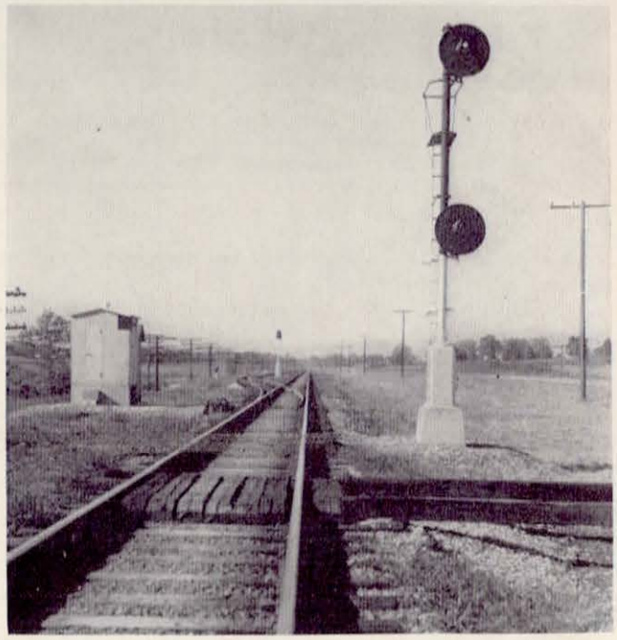
Between Birmingham and Montgomery there is double track south from Birmingham 33.7 miles to Calera, whence the 64-mile C.T.C. extends to Montgomery. In this territory the schedules include 10 passenger trains and 8 through freight trains daily, and a local freight each way daily except Sunday. Extra trains are operated as required, so that the traffic ranges from a minimum of 18, on some Sundays, to a maximum of about 24 trains daily.

The ruling grade northward is about 2 miles of 0.98 per cent ascending grade just north of Wadsworth. Elsewhere on the Calera-Montgomery section, the grade is rolling with short sections up to 0.8 per cent. On the first 37 miles south from Calera, curves are rather numerous, ranging up to 4 deg. The 25 miles south of Wadsworth includes long sections of tangent, with relatively few curves, ranging up to 3 deg. The track is well constructed with 132-lb. rail, good ties, and crushed rock ballast. Maximum permissible train speeds are 70 m.p.h. for passenger trains, and 45 m.p.h. for freight trains. Southward between Calera and Montgomery, the tonnage rating is 4,500 tons for a two-unit F7 diesel, and 3,000 tons for a J4 steam locomotive. Northbound, the tonnage rating for a two-unit F7 diesel is 3,000 tons, and for a J4 steam locomotive 1,975 tons.

Automatic block signaling, with three-position upper-quadrant semaphores, had been in service on the Calera-Montgomery single-track segment for 20 years, and spring switches had been in service at 30 siding switches. Therefore, train movements were being handled as expediently as was practicable under the timetable and train order system. But when trains encountered unexpected delays just prior to departure from stations or yards, for example, other trains lost time waiting on sidings, because the dispatcher had no means of changing train orders quickly enough to deal with the changed conditions.

Experience with earlier projects proved to the L&N that fewer sidings are necessary with C.T.C. An incentive to reduce the number of sidings is that a large percentage of the cost of the C.T.C. is in the power switch machines and signals at sidings, and in their controls. With this in mind, and because many of the existing sidings were too short for the trains now operated, it was decided to make extensive siding changes as an important part of this project.

Previous to the C.T.C. application this 64-mile line had a single siding at each of 7 locations and two sidings at each of four locations, a total of 15 sidings used by passing trains. Six of the sidings were lengthened and equipped at both ends with power switch machines. These sidings are at (1) Jemison, former west siding; (2) Clanton, former east siding; (3) Coopers, former east siding; (4) Mountain Creek; (5) Deatsville, former west siding; and (6) Elmore. Three sidings, one at Verbena, the west siding at Coopers and the east siding at Jemison, were removed. Sidings at Minooka, Thorsby, Lomax and Coosada, as well as one siding each at Clanton and Deatsville, were shortened and converted to business tracks to serve freighthouses, mills and industries. Thus, of the 15 sidings that could previously be used for the passing of trains, only six are now so used in the new C.T.C. operation.

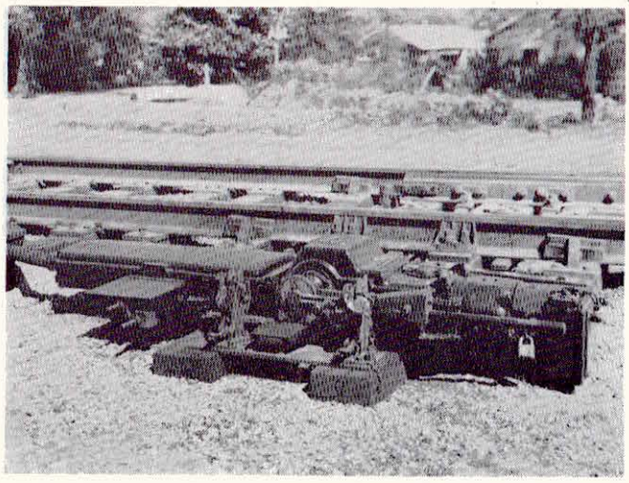


Train movements are now authorized by signals which are controlled by the dispatcher.

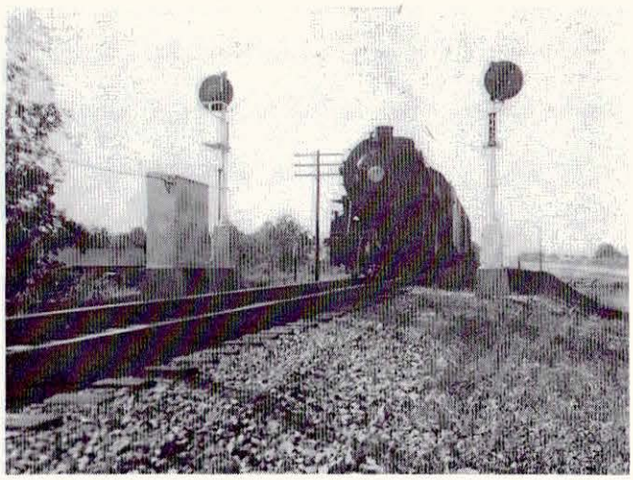
Switches connecting the business tracks to the main line are equipped with new hand-throw switch-and-lock mechanisms, including an electric lock for "normal."

End of Double Track Moved

Previously the north end of double track in the Montgomery area was at a crossover near Milepost 488. This end of double track was moved to a new spring switch layout at S. & N. yard, north of Milepost 487, at which point the C.T.C. territory begins, running northward from signals 37LA and 37LB at this spring switch. The



The siding switches are operated by electric switch machines.



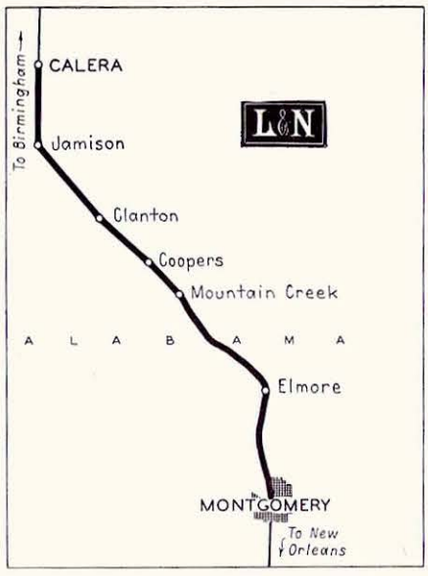
Intermediate signals permit following train moves in a siding-to-siding block.

end of double track is now north of the switches by which southbound freight trains departing from the yard enter the Montgomery-Mobile subdivision, and these trains do not enter into the Calera-Montgomery C.T.C.

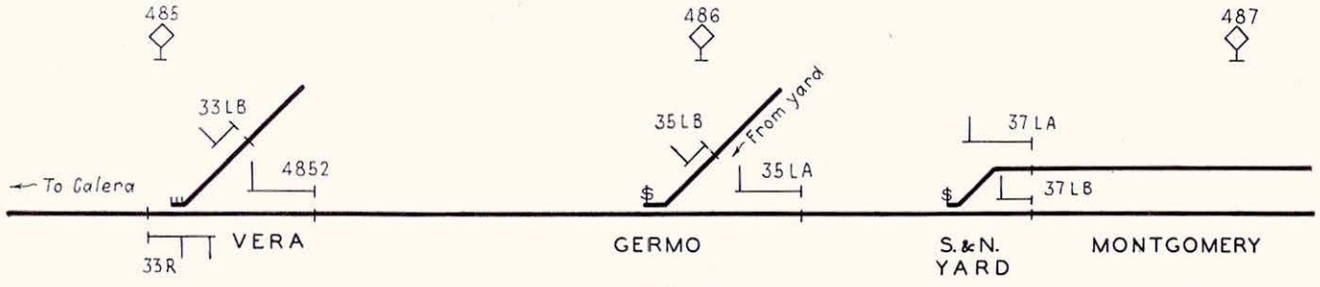
Northbound freight trains leaving the Montgomery yard enter the main line at a spring switch at Germo, near Milepost 486, this move being governed by C.T.C.-controlled dwarf signal 35LB at the clearance point on this turnout. While the dispatcher has the best information available concerning northbound freight trains as they are being made up, in many instances unexpected delays are encountered. In order to eliminate delays to other trains that might be caused by lining up too soon for a northbound freight to leave the yard, a special push-button was installed at the yard departure dwarf signal, 35LB. When a train is completely ready to pull out, the head brakeman pushes this pushbutton, which causes a special indication to appear on the dispatcher's panel. With this advice he then, as soon as possible, lines up the route and clears the signal for the train to depart. This special feature saves train time quite frequently. Southward freight trains enter the yard at Montgomery at a new power switch, No. 38, just south of Milepost 485.

The 13 power switch machines, as well as the signals at these switches, and three spring switches, are all controlled by a line coding system from a C.T.C. control machine in the dispatcher's office at Birmingham, which is 33.7 miles north of the north end of the C.T.C. territory. On the illuminated track diagram, above the levers on this machine, the line representing the five to eight miles of track from the south switch of one siding to the north switch of the next siding is equipped with two lamps, each of which is lighted when a train occupies its corresponding half of the respective siding-to-siding block. This use of two lamps—rather than only one—gives the dispatcher better information concerning the location and progress of trains, so that he can plan closer meets.

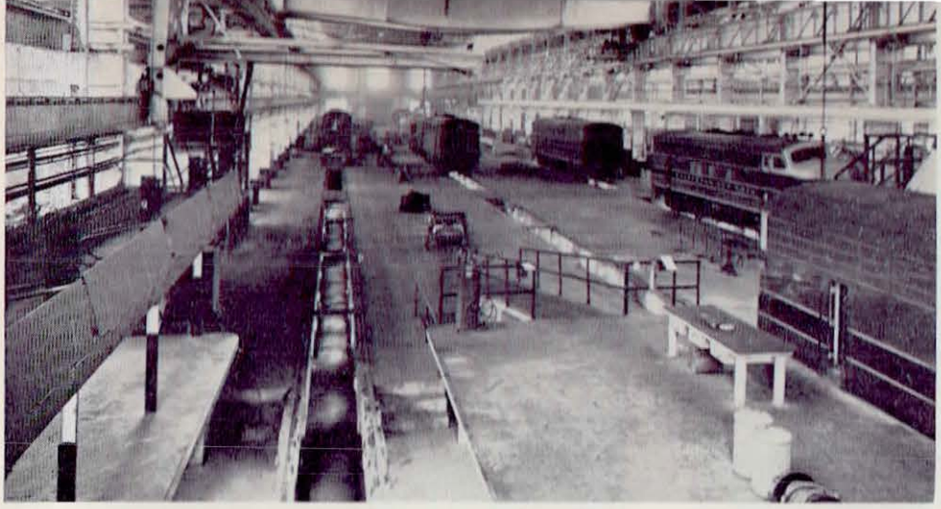
This signaling project was planned and constructed by signal forces of the Louisville & Nashville, under the direction of W. H. Stilwell, signal engineer, the major items of signaling equipment being furnished by the General Railway Signal Company.



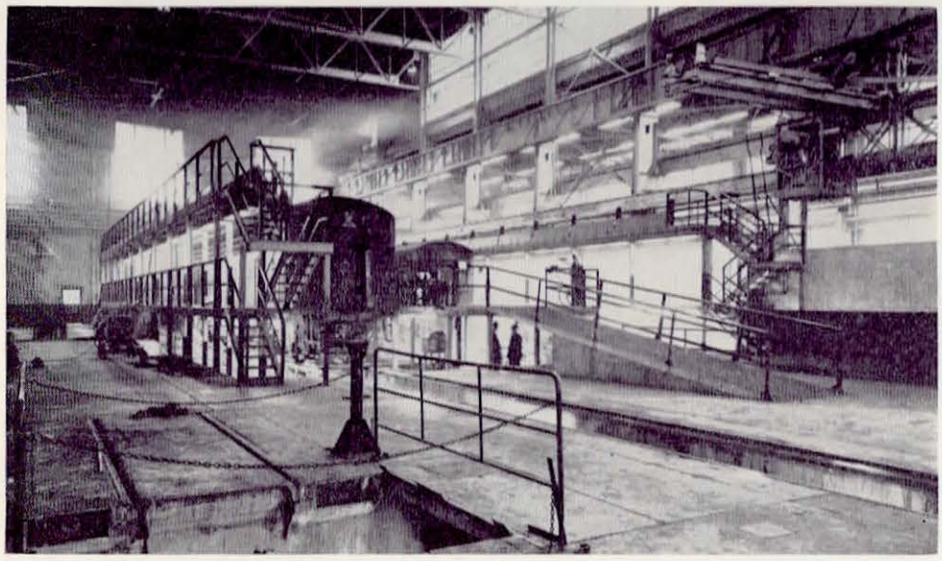
The new C.T.C. territory extends 64 miles north from Montgomery.



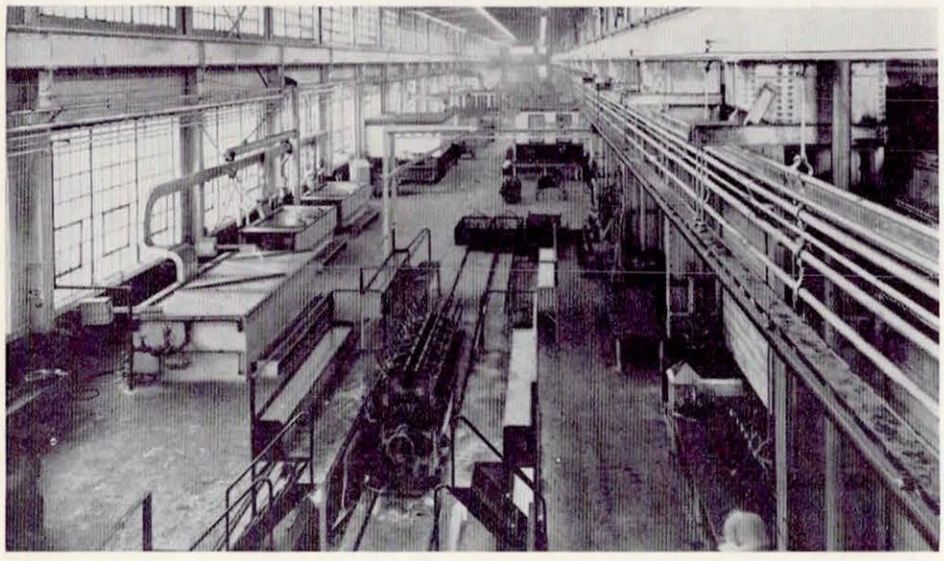
Arrangement of tracks and signals in the vicinity of the yards at Montgomery



Erecting bay of the Glenwood shop as seen from the top platform of the three-level working area. Shop has new reinforced concrete floor. An intercommunication talk-back system with stations throughout shop speeds up operations.



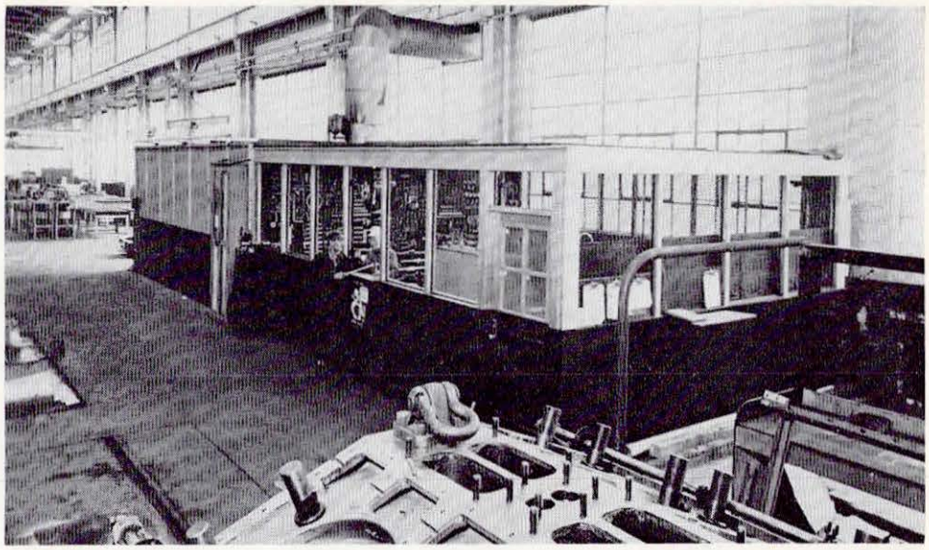
Engines are removed and installed at this 100-foot three-level working area. Hinged ramps, 8 feet long, are lowered to permit access to cab roofs. Area has outlets for supplying oxygen, acetylene, steam and water; a connection for removing old lubricating oil; hose reels for use in supplying new oil; and fluorescent lighting under each platform.



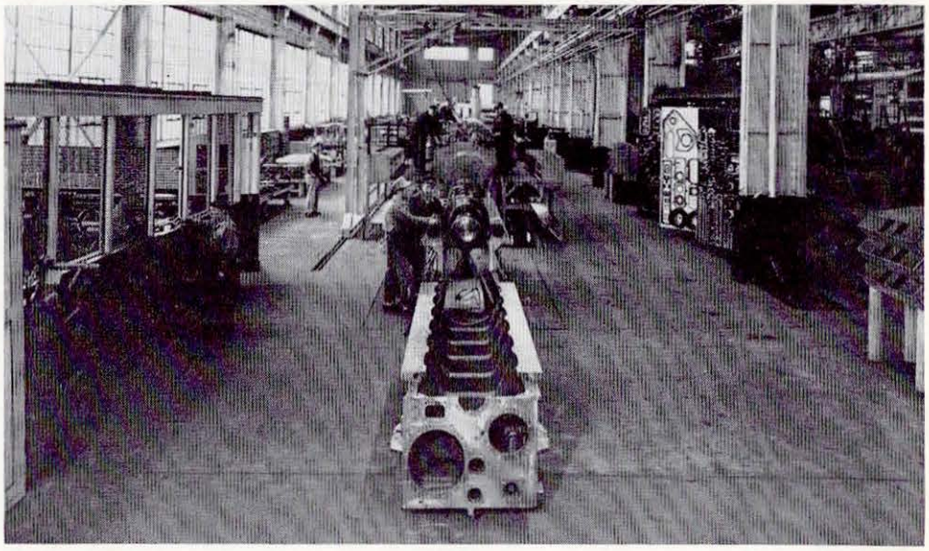
The engine repair bay is laid out for straight-line production. Dismantling position is in foreground, cleaning vats at left, air-conditioned and dustproof room for injectors, pumps and governors at left center, and foreman's office and records at right center. Engine assembly position is beyond foreman's office. Note fluorescent lighting.

How the B&O Centralizes Freight Diesel Repairs

Two rows of repair benches for small parts are served by twin roller conveyor and jib crane with electric hoists. (When this picture was taken the elevator conveyor end had not been installed.)



Tools are neatly arranged on special wall racks in room adjacent to engine assembly position. Paint spray booth adjoins the tool room at left.



The engine assembly position. A complete set of parts for each engine is stored on benches and in racks and bins at left of assembly position. All types of gaskets are on three-section board at right—each section rotates and has gaskets on reverse side.

Like many other American railroads the Baltimore & Ohio has to maintain and repair an ever-growing fleet of diesel-electric locomotives.

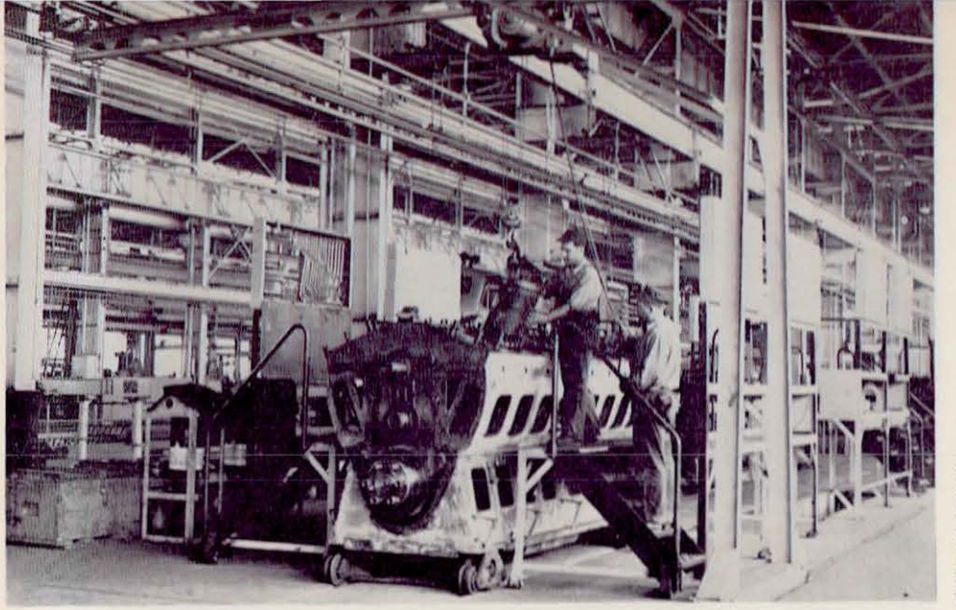
At the annual meeting November 17 President R. B. White reported that the B&O had 696 diesel units in service and 62 on order.

Over two years ago the B&O management decided to convert the Glenwood (Pittsburgh, Pa.) steam locomotive back shop to the system heavy repair shop for diesel freight units. This shop also will handle heavy repairs to switching units assigned to the Central region. This decision was based on the following facts:

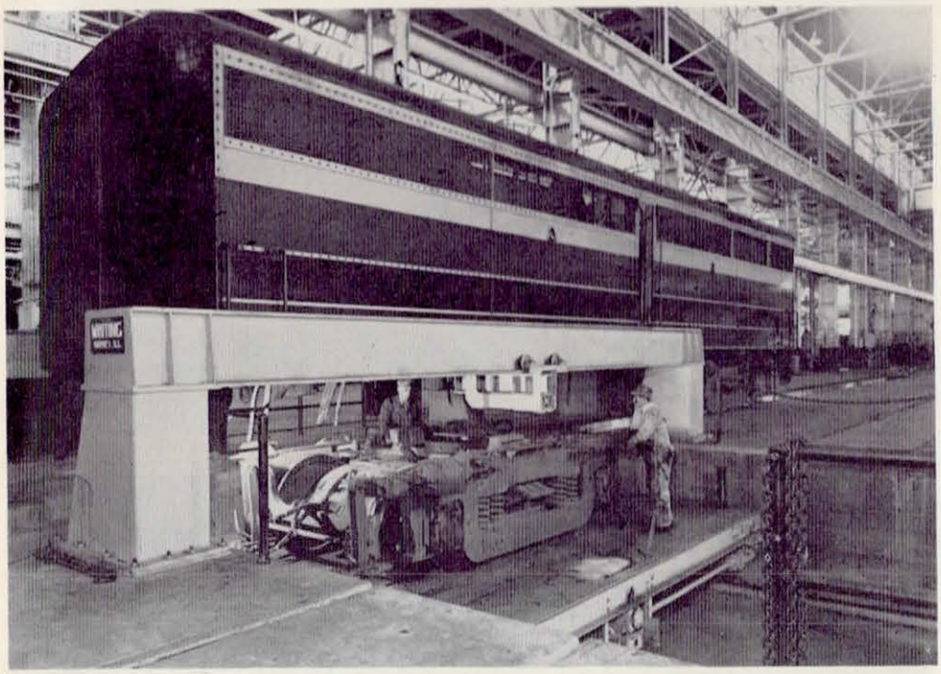
1. Glenwood is centrally located geographically and trafficwise with respect to the system and to the class of diesels to be repaired. Pittsburgh is 519 miles from New York, 472 miles from Chicago and 661 miles from St. Louis.

2. It is a longitudinal shop readily adaptable to straight-line production operations.

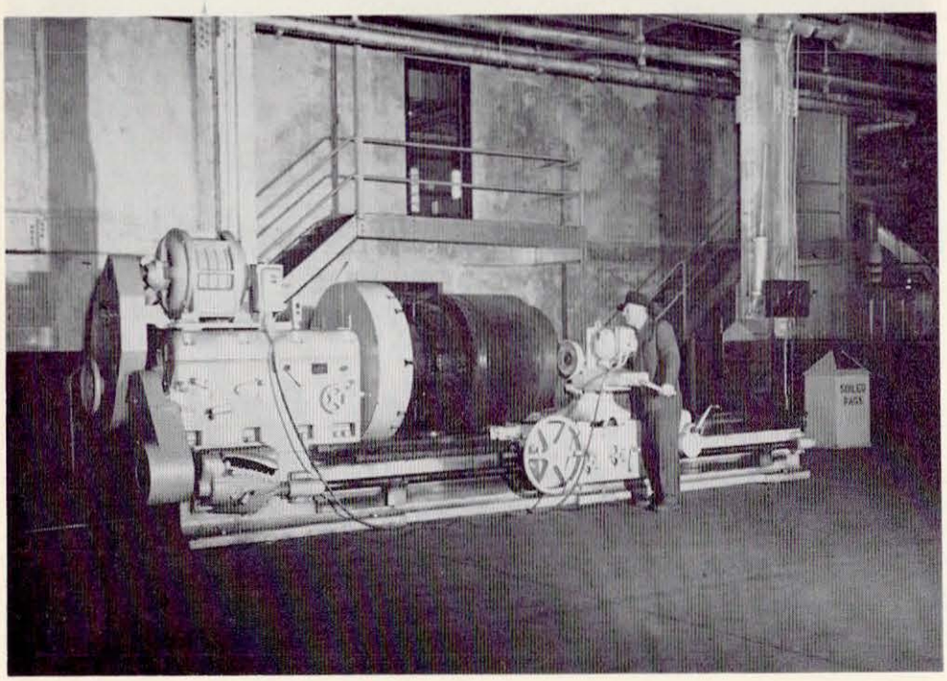
3. It is equipped with adequate overhead cranes of



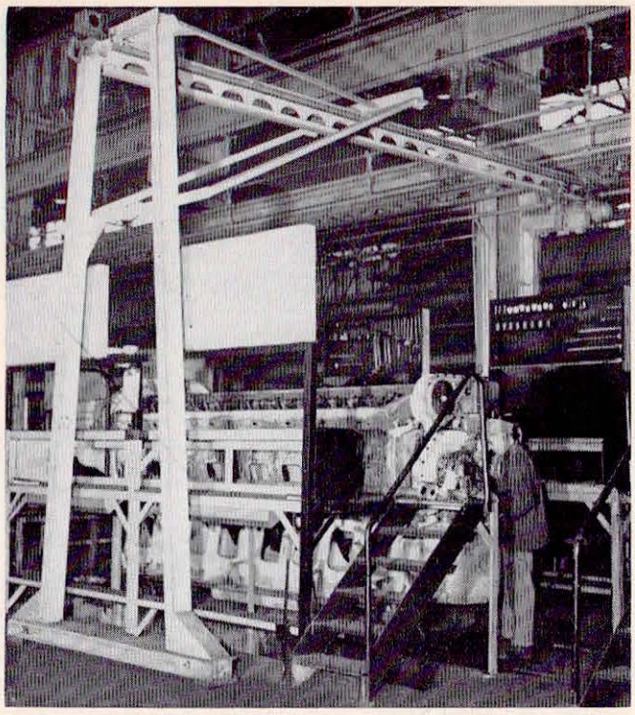
Dropping power assembly into cylinder block, using one-ton, one-leg gantry crane. Note that platforms are on track and can be moved in or out to accommodate engines of different widths.



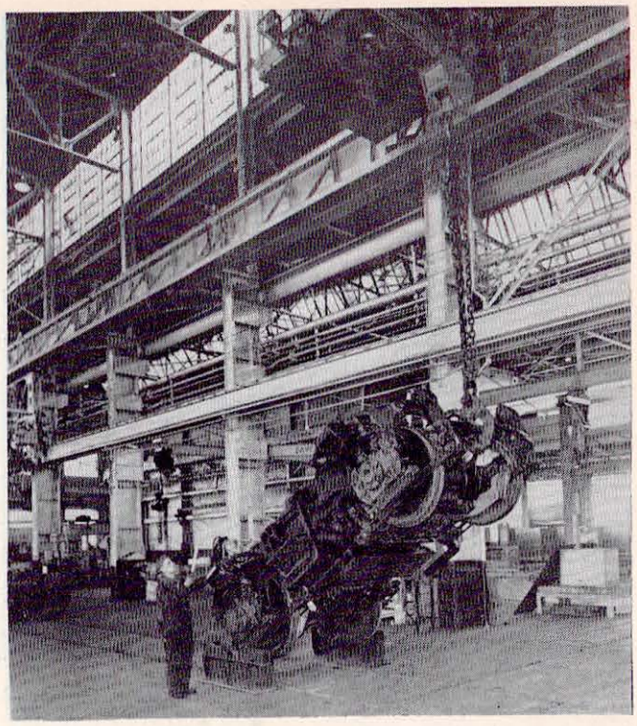
Trucks are removed and applied on a 90-ton drop table. The shop is equipped with a 60-ton drop table for handling a single pair of wheels and traction motor.



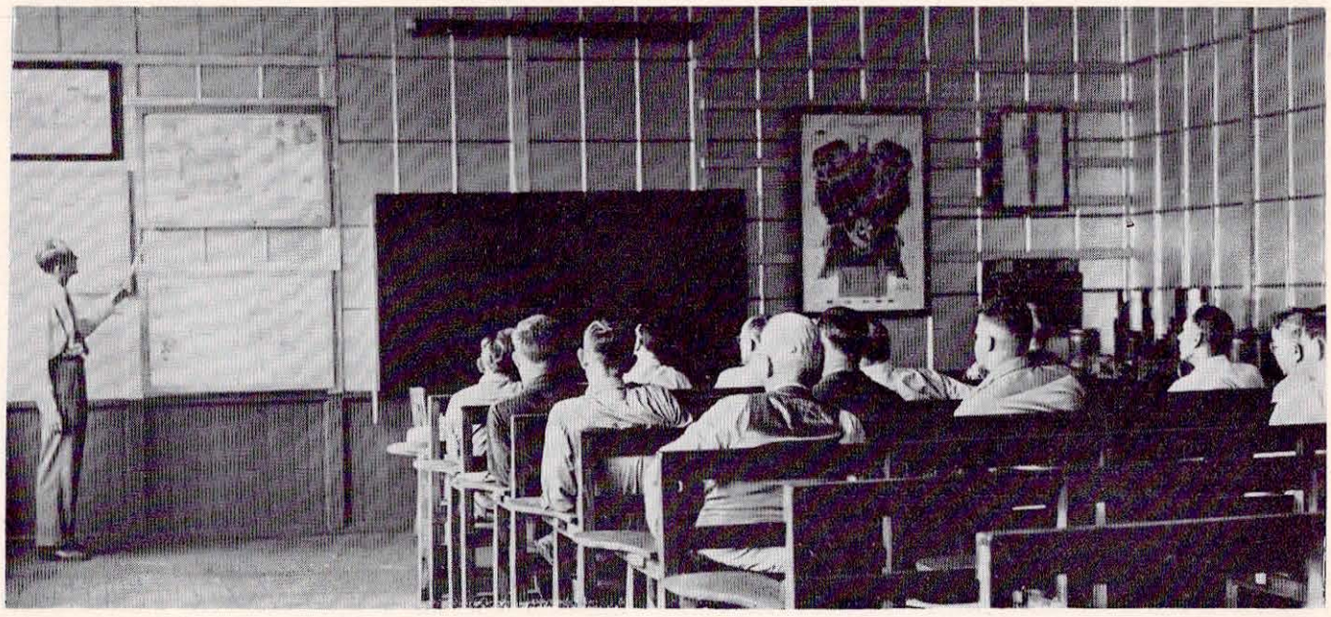
Armatures are ground on this lathe. Motors are reconditioned and balanced on new machine but no rewinding is done at shop.



A one-ton, one-leg gantry crane for handling power assemblies, working platforms and convenient small tools speed up engine repairs at both the dismantling and the assembly positions.



By use of a crane and a turnover fixture a four-wheel truck is inverted for work on underside. Wheels and motors are removed; trucks are dismantled; frames go to cleaning vats, hangers and pins to blacksmith shop.



Training of employees in diesel maintenance is conducted in class room on balcony. Room is equipped with charts, blackboard, projector and recorder; the latter permits lectures to be sent to master mechanics at other locations.

ample capacity and with the headroom needed to permit conversion to diesel maintenance at minimum expense.

The Glenwood shop is now in full operation as a straight-line production diesel repair facility after two years of alteration work and the expenditure of approximately $1 million. The conversion was so well planned that it was completed without the shop force losing one day's work. Excavation was started in August 1950 and the last steam locomotive to be repaired was despatched on August 31, 1951, when diesel repairs were initiated.

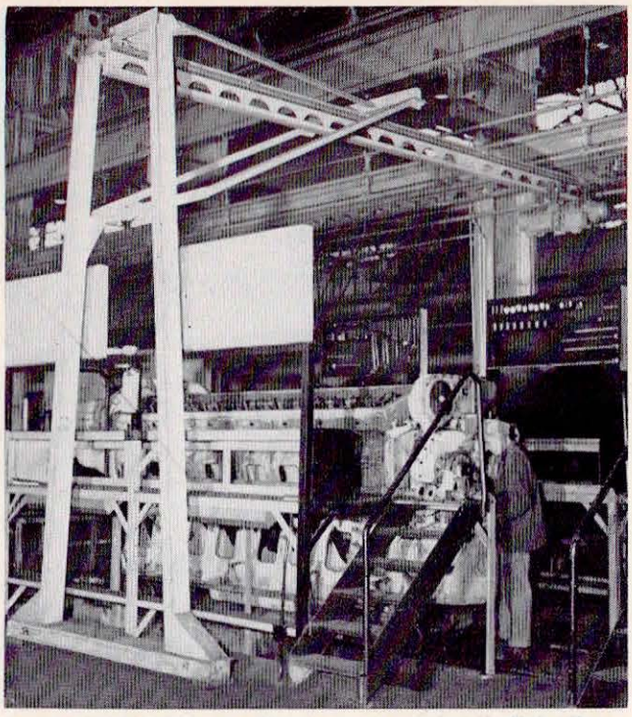
Built in 1919 at a cost of $2,097,500, the Glenwood shop is 232.5 ft. wide and 638 ft. long. With 148,000 sq. ft. of main floor area available there is plenty of room for all diesel repair operations without crowding. The original shop's overhead cranes included two of 100 tons capacity, one 30-ton and one 15-ton. These have been retained to move heavy diesel locomotive components. Major alterations to the shop included construction of a 100-ft. three-level working area, installation of 60- and 90-ton drop tables, engine dismantling and assembly positions with pits, numerous cleaning and repair facilities, and a reinforced concrete floor.

One of the production locomotives in service on the Union Pacific.

What the Union Pacific Gas Turbines Have Been Doing

Railroad considers their performance so satisfactory as to warrant placing an order for fifteen more locomotives for 1954 delivery

Six gas-turbine-electric locomotives are now in regular service on the Union Pacific. They have been well received by the operating and maintenance personnel, according to A. H. Morey, project engineer, Locomotive and Car Equipment Department of General Electric Company, builders of the locomotives, and F. Fahland, general mechanical engineer of the UP. In a paper presented at the annual meeting of the American Society of Mechanical Engineers in New York, during the week of November 30, they outlined experience with this power on the road. The locomotives, they said, have been well received by operating and maintenance personnel, though there has been the "usual amount of criticism" from both road and shop crews about details. Road foremen, dispatchers and superintendents, have "acquired a great deal of confidence in these locomo-



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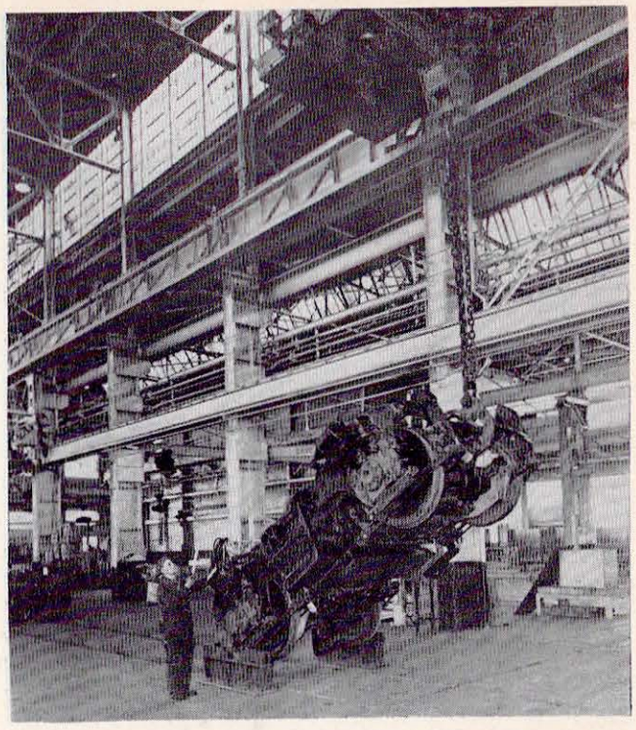

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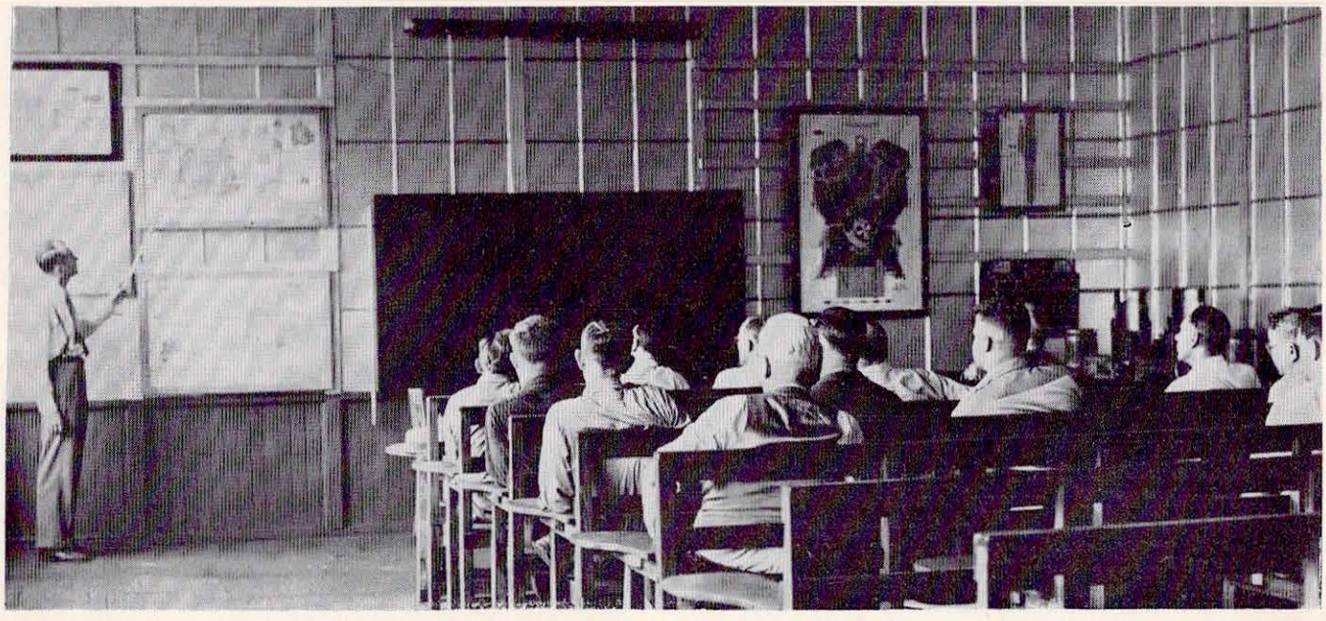

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Feucht to Succeed Williams As North Western's Head

Though he has completed nearly 50 years of railroad service, Mr. Williams will remain active as chairman of North Western and "Omaha" boards

Paul E. Feucht

Rowland L. Williams

Rowland L. Williams, who has headed the 9,500-mile Chicago & North Western system since 1939, will retire on January 1 as president of both the C&NW railway and its affiliated Chicago, St. Paul, Minneapolis & Omaha. Succeeding Mr. Williams in these capacities and also becoming a director of each company, is Paul E. Feucht, executive vice-president, who came to the system in that capacity only 16 months ago.

Prior to joining the North Western, Mr. Feucht spent 27 years with the Pennsylvania, a career which culminated in his election as vice-president of the Western region at Chicago in October 1946. In addition to his new duties with the North Western and the Omaha Mr. Feucht will also succeed Mr. Williams as president and director of a number of subsidiary companies—including the Peoria & Pekin Union with which he had been associated previously as vice-president and director while with the Pennsylvania.

Called to Meet a Crisis

Mr. Williams came to the North Western in what might well be termed the road's darkest hours. After many years of operation as an outstandingly healthy and profitable property, it was driven into bankruptcy in 1935 by a combination of highway competition, depressed agricultural rates, the worst drouth in its territory's history and a prolonged low level of business generally. At the time of his appointment, Mr. Williams had been serving as executive vice-president of the Chicago & Eastern Illinois, having gained recognition through his ability to scale down expenses while at the same time making outstanding improvements in operating efficiency—as, for example, the establishment of a centralized division accounting bureau which effected a saving of more than $100,000 annually. Oddly enough, when Mr. Williams was invited to become chief executive officer of the North Western and president of the Omaha (which was not in the hands of the courts) in 1939, he had never so much as ridden in a North Western train!

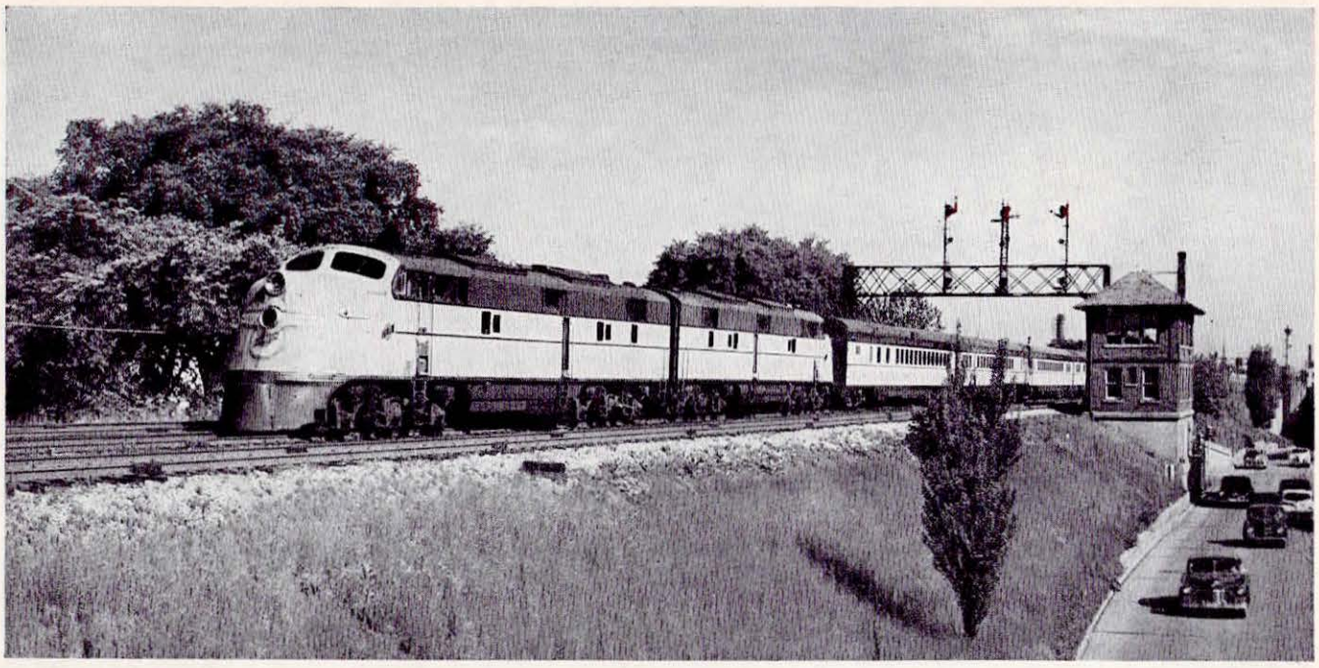
This situation was soon remedied by a program of frequent inspection trips which ultimately carried him over every foot of the then 10,028-mile system. One of his first prescriptions for the ailing road was, as he puts it, "a good old-fashioned housecleaning"—disposition of old and disused sidings, branch lines, locomotives, buildings and other equipment and facilities. In all he succeeded in getting rid of more than 1,000 miles of idle trackage and well over 2,000 buildings of sundry description. In three years he had converted 700,000 tons of scrap metal into $7 million of badly needed cash. He also inaugurated a program of consolidating locomotive shops, car shops and service points to centralize operations and keep them within fewer buildings with consequently lower maintenance costs. In 1944 he instituted a systemwide program of improving shop and work equipment to replace obsolete and worn-out machine tools with modern ones of greater capacity and efficiency. Improvement expenditures aggregated $3.8 million in this category alone.

Under the plan of reorganization of the company promulgated in 1944, total capitalization was reduced from $550 million to $450 million. Since that time, further progress has been made toward debt reduction. The total debt (equipment obligations, fixed interest bonds and notes and income bonds) exceeded $210 million in 1944. As of December 1951 this figure had been pared down to $184 million and the total capitalization reduced to slightly in excess of $357 million. Fixed charges have been cut from $3.9 million to $2.9 million.

The North Western which Mr. Feucht will take over on January 1 is far stronger than when Mr. Williams first saw it in 1939. But it is still faced with difficult long-term problems, most of which are "built in" as a result of growing where it did and as it did.

While products of mines, for example, account for nearly 40 per cent of the C&NW's freight tonnage, the vast majority of its lines were constructed solely to serve agriculture, and thus light-density and seasonal traffic is the rule on much of the total mileage. Manufactured and miscellaneous products likewise account for a large tonnage (close to 30 per cent) but, again, the bulk of this traffic is confined to a relatively few lines.

With a preponderance of branch lines and secondary routes, and with no offsetting benefits of a long through haul, the average haul is shorter and the average traffic density is far lighter than for other roads in the same territory. Its transportation ratio therefore is unavoidably higher. Another consequence of its "territorial



In common with many other railroads, the North Western has a knotty problem in passenger service — particularly in suburban operations.

blanket" nature is that the North Western's economic well-being is very closely related to that of its 9-state territory.

Still another problem for the road is the heavy commuter traffic carried on the three main routes out of Chicago. In recent years, modest fare increases have been granted by the Illinois Commerce Commission, but the losses entailed by this service remain heavy and the commuters, who represent nearly three quarters of the road's total passenger volume, still contribute only about one fourth of its passenger revenue. Despite the red ink nature of this service, the road, under Mr. Williams, has modernized many suburban coaches, replaced several suburban stations and placed three Budd diesel cars in service handling a tightly scheduled sequence of off-peak runs. The road has also placed a number of general purpose diesel-electric locomotives in its suburban motive power pool.

Mr. Williams was born at Salem, Ill., and first entered railroad service at that point in 1903 when he applied for a job as messenger boy at the station of the Baltimore & Ohio Southwestern (now part of the B&O). He worked as messenger for two successive summer vacations and when he went to work for the railroad on a full-time basis he became a freight and yard clerk at that point.

On this job he learned telegraphy, and in February 1907 he left the B&OSW to join the C&EI as a telegraph operator. In July of that same year he was promoted to transportation timekeeper in the division superintendent's office. Subsequently, he filled the positions of chief accountant in charge of disbursement accounting for the division; assistant chief clerk, and later, chief clerk, to the division superintendent; and chief clerk to the division engineer.

In June 1918, he was promoted to chief statistician in the president's office in Chicago and he was subsequently given the title of special representative of the president. In this capacity he was assigned to make the special operating studies already mentioned. In 1932, Mr. Williams was further promoted to assistant to the president. In June 1935 he was named senior executive assistant and on February 7, 1936, he was elected executive vice-president—the position he held at the time of his appointment as chief executive officer of the C&NW and president of the CStPM&O.

A Purdue Graduate

Mr. Feucht, prior to joining the North Western, had spent his entire career on the Pennsylvania. He entered its service in March 1923 as an assistant on the engineer corps at Louisville, Ky., following his graduation from Purdue University with a degree in civil engineering. He served in that capacity there and later at Indianapolis, Ind., until January 1927, when he was appointed assistant supervisor of track at South Philadelphia.

A year later he was advanced to supervisor of the Schuylkill division and within the year was transferred to Tyrone in that same capacity. Next he was promoted to division engineer at Erie, and in October 1934 he was transferred to Fort Wayne, Ind. The following spring he was advanced to superintendent of the Wilkes Barre division and in May 1936 he was appointed superintendent of passenger transportation of the Eastern region at Philadelphia.

Three years later—in May 1939—he was promoted to general superintendent at Indianapolis where he had jurisdiction over four operating divisions. In another three years he was transferred to Cleveland, in this same capacity, following which he further advanced to general manager of the Western region at Chicago. In February 1946, he was transferred to Pittsburgh as general manager of the Central region. He returned again to Chicago in October 1946, as vice-president in charge of the Western region. In this capacity he also served as president of several subsidiary companies and as vice-president, or director, or both, of more than a dozen affiliated terminal, trucking and warehouse companies. He came to the North Western as executive vice-president in August 1951, and continues in that capacity until he takes office as president on January 1, 1953.

One of the production locomotives in service on the Union Pacific.

What the Union Pacific Gas Turbines Have Been Doing

Railroad considers their performance so satisfactory as to warrant placing an order for fifteen more locomotives for 1954 delivery

Six gas-turbine-electric locomotives are now in regular service on the Union Pacific. They have been well received by the operating and maintenance personnel, according to A. H. Morey, project engineer, Locomotive and Car Equipment Department of General Electric Company, builders of the locomotives, and F. Fahland, general mechanical engineer of the UP. In a paper presented at the annual meeting of the American Society of Mechanical Engineers in New York, during the week of November 30, they outlined experience with this power on the road. The locomotives, they said, have been well received by operating and maintenance personnel, though there has been the "usual amount of criticism" from both road and shop crews about details. Road foremen, dispatchers and superintendents, have "acquired a great deal of confidence in these locomo-

Principal Characteristics of the Union Pacific Gas-Turbine-Electrics

Weight	550,000 lb.
Weight per axle	68,750 lb.
Rated hp. (for traction)	4,500
Rated continuous tractive force	105,000 lb. at 12.9 m.p.h.
Maximum speed	65 m.p.h.
Balancing speed during hostling (Level-Tangent track)	25 m.p.h.
Max. track curvature	21 deg.
Capacity (fuel oil)	7,200 gal.
Capacity (diesel fuel)	1,000 gal.
Capacity (water)	845 gal.
Capacity (lube oil)	300 gal.
Capacity (sand)	37 cu. ft.
Rated full speed of gas-turbine	6,900 r.p.m.
Rated idling speed of gas-turbine	5,175 r.p.m.
Train air compressor displacement at full plant speed	246 cu. ft. per min.
Train air compressor displacement at idling	246 cu. ft. per min.
Auxiliary diesel engine rating	220 hp.
Auxiliary steam generator rating	1,500 lb. per hr.

tives," and there has been no hesitation in assigning them to the faster and more important trains. Their overall availability, operating costs and reliability, according to the report, have built up a general feeling of confidence and satisfaction on the part of all of the supervisory and management personnel.

There has been, naturally, a great deal of interest displayed by other railroads. Unfortunately, said the authors, a great many of the questions that have been asked have to do with values still unknown to them, and consequently they have not been able to give very satisfactory answers.

Further development of this type of motive power is one of the most interesting phases of the present operation, they explained, and one about which it is very unsafe to offer predictions. From a technical standpoint, there are many refinements which can be considered, such as waste heat boilers, recuperators, widening of fuel specifications and improvements in fuel rates. Many of these are interesting and, on paper at least, offer possibilities. Doing them, however, presents many problems. Undoubtedly, some of them will be done. In the meantime, the railroad and the builders are accumulating experience as to what the future locomotive will be like, and just what place these gas-turbine-electric locomotives will find for themselves on American railroads.

On the basis of its experience with the first General Electric gas-turbine-electric locomotive, built in 1948 and tested on several roads in 1949, the Union Pacific in 1951 ordered 10 units which essentially were duplicates of the pilot design, of which order the six now in service are a part. Without waiting for completion of this order, the Union Pacific this month further demonstrated its confidence in the performance of the gas-turbine-electric by ordering 15 additional units. The remaining four of the original order for 10 are scheduled for delivery in 1953 and the new order for 15 are for 1954 delivery.

The General Electric Company completed tests in Erie on its first gas-turbine-electric early in 1949. After short trials on the Nickel Plate and Pennsylvania it was consigned to the Union Pacific for extended hot weather and high altitude testing. This testing covered a fair percentage of the main line of the Union Pacific between Omaha and Los Angeles. Data were taken up to 120 deg. F. ambient temperature and 8,000-ft. elevation. A total of 105,732 miles were operated with 5,325 hours of fired time on the power plant.

Subsequently the locomotive was demonstrated on the Southern Pacific for a brief period, then returned to Erie. This first locomotive had an eight-axle, B-B-B-B wheel arrangement with a fully loaded weight of 66,500 lb. per axle. It was rated 4,500 hp. input to the generators for traction, but with low ambients and altitudes, the power plant would produce and the electric drive would accept 5,400 hp.

Locomotive Performance

As an experimental design, the performance on the Union Pacific was considered very promising. The A.S.M.E. paper points out that in 21 months operation on the UP the locomotive hauled a total of 348,608,000 gross ton-miles of freight, using 1,448,787 gal. of fuel. Train handling performance was very good and it was possible to utilize all the horsepower available under practically all conditions.

Performance on grades was pleasing with the locomotive handling 4,400 tons over 0.82 per cent grades at very satisfactory speeds. No trouble was experienced in tunnel operation. Riding qualities were especially good, the report states. The combination of 2-axle trucks coupled with a span bolster and the relatively long centerplate distance on the main cab minimized vibration and oscillation.

Crew acceptance was, in general, quite satisfactory. The characteristics of this locomotive were somewhat strange to the operating crews, although its manipulation followed diesel practice very closely. It took a little time for the crews to get accustomed to the different characteristics and learn to use them advantageously, but this was quickly mastered. Very early in the test period there was considerable criticism from the crews about noise. After some changes were made in the deflection of the exhaust, this criticism rapidly disappeared.

Servicing of the locomotive was somewhat awkward because of the location of fuel filling openings and the excessive number of sand boxes.

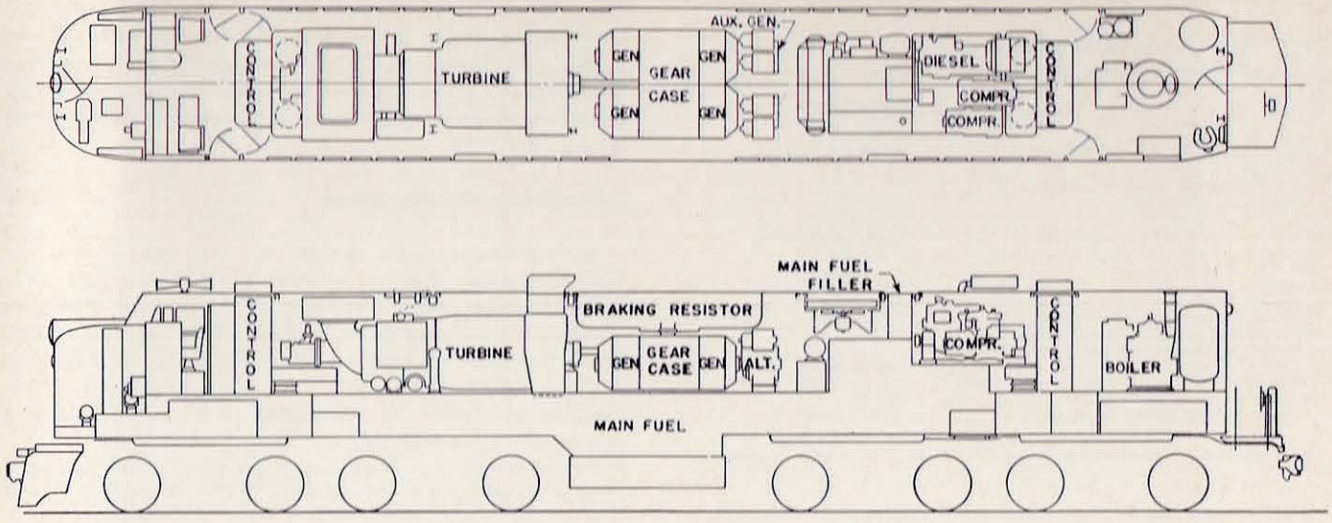
The locomotive was shopped several times for design changes or repair of failed equipment. Its overall availability, discounting design changes, was approximately 70 per cent. Analysis of the availability data indicated that 90 per cent might be a reasonable goal.

Ten Locomotives Ordered

In placing the order for 10 gas-turbine-electrics in 1951, the railroad requested a number of changes in addition to those proposed by the builder. The primary request was for an increase in capacity from 6,600 to 8,000 gal. of heavy fuel. The builder was able to provide 7,200 gal. and still meet the load limit of 71,800 lb. per axle set by the railroad. This capacity enables the locomotive to run 300 to 400 miles without intermediate refueling.

Other specifications by the railroad were 40-in. single-wear Class A wheels; improved equipment arrangement; improved piping; air brake modifications to meet Union Pacific practice; improved engine room drainage; and, in some cases, parts and materials better suited to railroad operation.

Although the 10 locomotives ordered were intended to be essentially duplicates of the first locomotive, they are actually different in many respects. For instance, it was decided that the production locomotive should have only one operating cab instead of two cabs as on the pilot locomotive. The cab is shortened from 80 to 78 ft. although the running gear remains essentially the same: —83 ft. 6½ in. between coupler pulling faces.



General layout of apparatus in the single-end production locomotive cab.

The new locomotive still has eight axles, all motored. The draft gear is located in the ends of the span bolsters, each of which rests on a pair of 2-axle trucks. The weight is increased to 275 tons. With 40-in. wheels instead of 42-in., the continuous tractive force is increased to 105,000 lb. at 12.9 m.p.h. Starting diesel fuel capacity is increased from 600 to 1,000 gal. and boiler water storage for heating fuel is increased from 575 to 700 gal.

The closed system for return of heating condensate is retained. Maximum speed is 65 m.p.h. with 74/18 gear ratio.

The 7,200 gal. of heavy fuel are carried in the main frame, between the center-plate bolsters, with additional tanks above and below. Diesel fuel is carried in the main frame ahead of the number one bolster and water in a separate tank between the main sills, to the rear of the number two bolster, under the boiler room. The lubricating oil tank, batteries, main fuel and lubricant pumps are suspended below the main fuel tanks.

Equipment and Arrangement

The operating cab follows the conventional diesel-electric locomotive pattern except for the power plant starting switch and notching guide on the engineer's instrument panel. Power plant warning signals are grouped ahead of the fireman. Another exception is the 20-notch throttle, which provides close control of power delivered to the traction motors.

The cab nose carries conventional air brake and other equipment, plus the starting diesel fuel transfer pump.

The rear compartment—or boiler room—which replaces the second operating cab of the pilot design, houses the locomotive fuel heating boiler, emergency tool locker and miscellaneous equipment. Between the boiler room and the operating compartment is the engine room with control cabinets at each end. This houses the main power plant and generating equipment, the diesel engine and auxiliary generating equipment, dynamic brake equipment, air compressors and oil coolers.

The gas-turbine power plant is at the forward end of the engine room. It has a 15-stage, axial-flow compressor with inlet air silencer, discharging into six combustion chambers. The combustion gas passes through a two-stage turbine and discharges from an opening in the roof. The power plant is started on diesel fuel and runs on residual fuel oil.

Several changes were made to improve the servicing conditions in view of experience with the first locomotive. The main fuel filling opening was moved from ahead of the operating cab to the mid-part of the locomotive. A dog-leg fuel tank is used to provide better filling flow characteristics through the length of the long tank in the platform of the locomotive. As a result, fueling time, under the spouts, was reduced materially. The sanding requirements were reviewed, with the result that 8 of the 16 filling openings originally used were eliminated.

The traction control arrangement was left essentially unchanged. The power plant starting was altered to the extent that, as far as the operating crews are concerned, it is now concentrated in a single four-position switch on the dash in front of the engineman. After the initial starting of the diesel engine in the terminal, the diesel engine, the main power plant and the hostling control for the locomotive are all actuated by this one switch. This switch is mechanically interlocked, and provided with indicating lights, so that it is almost physically impossible for an engineman to mishandle the starting of the power plant, or control of the locomotive. The power plant regulator was simplified by the elimination of some of the speed steps, and a simpler two-position diesel engine throttle operator is used. Series and parallel operation of the motors in hostling was also provided to allow a higher balancing speed with a light locomotive while hostling.

A great deal of attention was paid to the maintenance problems, particularly the removal and reinstallation of assemblies and subassemblies. The resulting locomotive, although not perfect in this respect, is a distinct improvement over the first model. There are one or two subassemblies which require series removal of other parts.

However, the main power plant, the main gear-generator assembly and the other major assemblies can be removed and replaced without removal of other equipment or units. The gas-turbine unit or gear-generator unit can be removed from a locomotive and replaced by another unit and the equipment run without realinement. The heating boiler and the train air compressors were relocated to provide better accessibility and easier removal.

Some of the more desirable characteristics of these locomotives are:

- Short length compared with other types makes them easy to handle in yards and shops.
- Excellent riding qualities and absence of irritating vibration make them attractive to operating crews.
- High horsepower permits high-speed train operation, except under very adverse temperature and altitude conditions.
- Elimination of reciprocating parts should provide dependable power at low maintenance.

Operation of New Locomotives

Six of these locomotives were delivered between February and August, 1952. Concerning their performance, the report states that, in general, train handling abilities have proved better than those of the pilot locomotive. There has been little difficulty in train starting. The first locomotive delivered was slippery on the front truck. This was overcome by ballasting and by the addition of a manually operated power reduction switch in the circuit supplying the front pair of traction motors. The locomotives are said to be still somewhat sensitive to poor rail conditions.

The centralized semi-automatic starting control on the main power plant and the diesel engine has been well received by the engine crews. This feature has made it practical to shut down the main power plant under standby conditions, largely overcoming the handicap of high fuel consumption at idle speed. Hostling movements in the yard are practically all made with the auxiliary diesel engine. Some long descending grades are often handled with the main plant shut down and with the auxiliary diesel engine furnishing power for the air compressors. The net result has been a somewhat lower fuel consumption than that recorded on the pilot locomotive. The saving on long descending grades, however, is a dubious economy since the dynamic braking cannot function unless the main plant is running. So the fuel saving is somewhat offset by brake shoe wear. Consideration is being given to supplying motor field excitation for dynamic braking from the diesel generator.

Practically all of the operation to date has been on a 175-mile mountain division between Green River, Wyo., and Ogden, Utah. The elevation varies from approximately 4,300 to 7,200 ft. The first 65 miles eastbound from Ogden is a helper grade of approximately 1.14 per cent. Ruling grades over the balance of the run do not exceed 0.82 per cent. The locomotives handle trains weighing up to 5,000 tons. Rated tonnage over this run is 4,890 tons.

Total fuel consumption is currently averaging 4.28 gal. per 1,000 gross ton-miles.

The locomotives are averaging approximately 9,000 miles per month which is quite high for so short a run. This must be discounted to some extent because of the special attention and supervision they are receiving during their initial service.

Locomotive Servicing

Servicing, the report states, usually begins at the time the train arrives at the yard. A trained man, either a manufacturer's representative or railroad employee, boards the locomotive and makes a preliminary inspection while the train is moving through the yard. The locomotive is then cut off from the train and hostled to the servicing pit where it is given a rapid but thorough inspection and cleaning. At the same time that diesel fuel is supplied, the steam generator is blown down and supplies are put on board. The locomotive then backs to the next station where it takes sand and heavy fuel. Then another move is made in the same direction for boiler water. After a move to the turntable, the locomotive is ready for the next trip. This servicing operation normally requires about 45 minutes from pit to ready track although it has been accomplished, under pressure, in 20 minutes.

The servicing operation just described occurs frequently enough to be considered normal, though additional work is often required. One or two of the joints in the fuel oil, lubricating oil, water or steam pipe system may be found to be leaking. These are tightened during the servicing operation. Occasionally, a failure requires one of the many pieces of small equipment to be replaced or repaired.

The Difficulties Encountered

The locomotives have not been in service long enough to have needed heavy maintenance. The required monthly, quarterly and semi-annual inspections have so far been adequate to care for them. This, of course, excepts the troubles encountered in a new design of power plant and locomotive. These troubles have fallen into several general classifications:

First are the nuisance troubles inherent in any new design. While serious from the standpoint of designing motive power, these are usually small items, more or less readily fixed.

Then there are troubles resulting from manufacturing defects and inadequate parts or material. The report indicates that there have been relatively few road failures, only three of which can be considered serious. Two of these were caused by failed traction-motor pinions. The gears and pinions are a standard diesel-electric type. While horsepower transmitted is somewhat in excess of general previous experience, these failures have been ascribed to defective material. The other serious failure occurred to the first turbine after approximately 1,100 hours and can be considered a design defect in the stationary parts. This has been corrected by progressive removal and modification of each turbine in service, using one spare turbine to keep the locomotives in operation. There has been somewhat excessive wheel tread and flange wear. This could be caused by excessive loading, unsuitable wheel material, or somewhat higher power delivery per axle than is customary on diesel-electrics.

There are also problems of fuel system equipment such as metering pump, fuel nozzles and combustion changers which have had difficulty handling the low-cost residual fuel oil that must be used if the gas turbine is to be economically a serious competitor of the diesel engine.

These problems are not considered insurmountable, and while the cost of scheduled heavy maintenance has yet to be determined and evaluated, the handling of the troubles encountered so far has indicated that the locomotive is well arranged to minimize expense of heavy maintenance.

Development work is constantly under way to correct faults and to improve the locomotives. Major improvements have been made in the gas turbine power plants themselves, especially in the combustion chambers and turbine first stage nozzle. Many small problems have been solved; and while each one seems small, the aggregate has resulted in much improvement to the locomotives.

(*Continued from page 16*)
said, shippers lose as many as 100 50-lb. bags a car because condensation of moisture, caused by loading potatoes in hot, closely packed cars, leads to breakage of paper bags. Current research, he added, is directed toward a loading method which will have air channels to allow drying of condensed moisture. The A.A.R., he said, also has been experimenting with ventilated bags.

October Accidents

The Interstate Commerce Commission has made public its Bureau of Transport Economics and Statistics' preliminary summary of "steam railway" accidents for October and for the first 10 months of 1952. The compilation, subject to revision, follows:

Item	Month of October 1952	Month of October 1951	10 months ended with October 1952	10 months ended with October 1951
Number of train accidents*	923	939	8,293	9,062
Number of accidents resulting in casualties	73	58	460	451
Number of casualties in train, train-service and nontrain accidents:				
Trespassers:				
Killed	97	78	882	961
Injured	64	90	813	872
Passengers on trains:				
(a) In train accidents*				
Killed	..	..	..	100
Injured	18	1	192	1,157
(b) In train-service accidents				
Killed	3	2	12	15
Injured	152	121	1,460	1,491
Travelers not on trains:				
Killed	..	1	8	6
Injured	74	59	601	589
Employees on duty:				
Killed	41	32	300	302
Injured	1,942	1,958	16,940	19,162
All other nontrespassers:**				
Killed	152	165	1,233	1,336
Injured	540	543	4,411	4,794
Total — All classes of persons:				
Killed	293	278	2,435	2,720
Injured	2,790	2,772	24,417	28,065

*Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former caused damage of $300 or more to railway property in 1951. Beginning January 1, 1952, this minimum was raised to $325. Only a minor part of the total accidents result in casualties to persons, as noted above.

**Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossings casualties for all classes of persons, including both trespassers and nontrespassers, were as follows:

Persons:				
Killed	138	154	1,099	1,204
Injured	387	377	2,906	3,254

"Quick Assets" Rose 6.1 Per Cent in Year

"Quick assets" of the Class I railroads increased 6.1 per cent, from $1,699 million to $1,802 million, during the 12 months ended September 30.

This was shown by figures published in the latest "Monthly Comment" of the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. "Quick assets" are comprised of cash and temporary cash investments.

September 30, 1952's $1,802 million was sufficient to cover 79.8 per cent of the total current liabilities reported by the Class I roads as of the same date. The coverage ratio was 77.5 per cent on September 30, 1951; but the territorial ratios were then better in all sections except the Western district, where it was 83.6 as compared with 92.3 on last September 30.

The "Comment" article also showed that the Class I roads' net corporate working capital (total current assets less total current liabilities) increased from $1,385 million on September 30, 1951, to $1,445 million on the same date this year, a rise of 4.3 per cent. Excluding materials and supplies, the increase was 21 per cent—from $472.6 million to $572.1 million. The materials and supplies account was down from $911.9 million to $872.6 million.

Another Conveyor Belt Line Proposed in Ohio

A 4½-mile rubber conveyor belt connecting Cleveland waterfront dockage with the heavily industrialized Cuyahoga River valley, has been proposed by the B. F. Goodrich Company, rubber manufacturer, as a means of overcoming the constricting effect of the river's limited navigation and waterfront facilities.

At a meeting of the Cleveland Port & Harbor Commission, a spokesman for the rubber manufacturer estimated that the belt road could be completed within a year at a cost of about $6 million. He added, however, that neither the cost of constructing docks and loading facilities, nor the cost of a right of way, was included in this figure. According to the proposal, a pipeline for petroleum products would share the belt road structure. The belt would be used to handle iron ore and limestone to steel mills and other industrial processors in the industrial district without requiring ships to navigate the Cuyahoga river.

The city's planning commission termed the idea "well worth exploring," but, as in the case of the widely publicized Riverlake Belt Conveyor line (proposed to connect a Lake Erie port with the Ohio river but so far lacking the right of eminent domain), the commission admitted there would be many legal and financial problems to be solved first.

Escalator Clauses Call For Cent-Per-Hour Cut

Railroad employees working under agreements with so-called escalator clauses will take a wage cut of one cent per hour which will be effective during next year's first quarter.

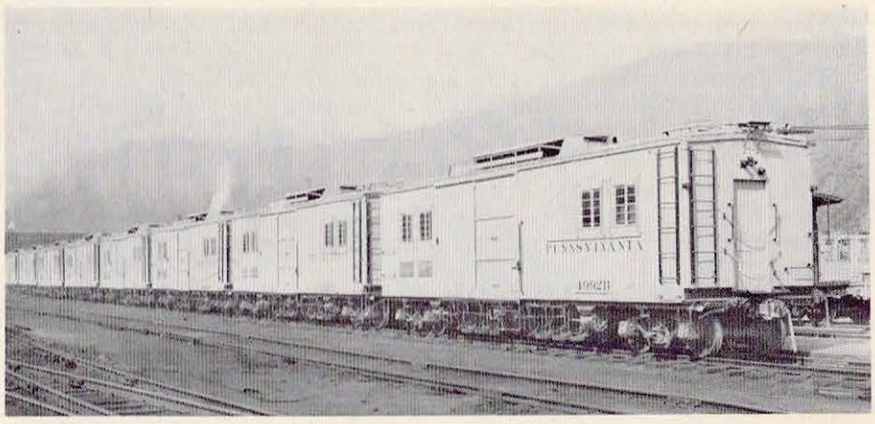
The escalator clauses call for quarterly adjustments of one cent per hour for each point of change in the Consumers' Price Index (old series) calculated by the Bureau of Labor Statistics. The November 15 index of 191.6 requires the January 1 cut.

It was seven-tenths of a point below the August 15 index (192.3) which governed during the current quarter.

The escalator clause base is 178, so the January 1 adjustment will still leave the escalator-clause raises at a net of 13 cents per hour.

The B.L.S. will supplant its present indexes with a Revised Consumers Price Index, effective with the index for January 1953. Publication of the old series will be discontinued, so escalator clauses will have to be tied to the new series, which will be on a 1947-1949 base as 100 instead of 1935-1939.

B.L.S. said in a recent statement



AN EIGHT-CAR RAIL GRINDER TRAIN, consisting of units converted from box cars at the Pennsylvania's Altoona, Pa., works. Each car has 12 grinding wheels, six of which work on each rail.

that, "in order to facilitate the transition," it will publish this month's indexes on both the 1935-39 base and the new 1947-49 base. Also, the "U.S. all-items" index of the new series will be published on both bases throughout 1953.

Amortization Certificates

Certificates of necessity for accelerated tax amortization of facilities were granted to 20 railroads during the period from November 13 through December 3, the Defense Production Administration has announced.

Roads receiving the fast write-off certificates are listed below, together with the amounts approved by D.P.A. and the percentages of those amounts which can be written off in five years.

Atlanta & West Point, $155,000, 55 per cent.
Atlantic Coast Line, $150,417, 70 per cent.
Baltimore & Ohio, $6,446,178, 55 per cent.
Chesapeake & Ohio, $1,499,050, 40 per cent.
Chicago & Eastern Illinois, $525,000, 70 per cent; and $144,000, 40 per cent.
Denver & Rio Grande Western, $130,601, 50 per cent.
Great Northern, $7,781,550, 55 per cent.
Illinois Central, $130,064, 40 per cent.
Lake Superior & Ishpeming, $347,300, 40 per cent.
Lehigh Valley, $760,000, 70 per cent.
Louisville & Nashville, $150,418, 70 per cent.
Norfolk & Western, $1,100,000, 50 per cent.
Oregon Electric, $48,401, 40 per cent.
Patapsco & Back Rivers, $930,000, 50 per cent.
St. Louis Southwestern, $28,000, 70 per cent.
Seaboard Air Line, $807,850, 50 per cent; and $182,178, 40 per cent.
Southern, $38,422, 50 per cent; and $433,958, 40 per cent.
Spokane, Portland & Seattle, $179,033, 50 per cent; and $132,277, 40 per cent.
Union Pacific, $483,778, 40 per cent.
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WHEELING & LAKE ERIE.—4 per cent prior lien, $1, quarterly, and common, $1.43¾, quarterly, both payable February 2, 1953, to stockholders of record January 16.

Investment Publications

[The surveys listed herein are for the most part prepared by financial houses for the information of their customers. Knowing that many such surveys contain valuable information, *Railway Age* lists them as a service to its readers, but assumes no responsibility for facts or opinions which they may contain bearing upon the attractiveness of specific securities.]

Dreyfus & Co., 50 Broadway, New York 4.

Alleghany Corporation. December 9.

Fahnestock & Co., 65 Broadway, New York 6.

Baltimore & Ohio Railroad Co. Weekly Review, December 8.

Cyrus J. Lawrence & Sons, 115 Broadway, New York 6.

The Chesapeake & Ohio Railway Company. A 47-page detailed study.

Smith, Barney & Co., 14 Wall st., New York 5.

Baltimore & Ohio Railroad Company. 4% Non-Cumulative Preferred Stock. Railroad Bulletin No. 114, December 9.

The Problems of the Eastern Railroads. Address delivered by Walter F. Hahn before the Eastern Regional Conference sponsored by the New York Society of Security Analysts on November 24, 1952. Railroad Bulletin No. 115, December 10.

Railroad Earnings. Railroad Bulletin No. 113, December 5.

Spencer Trask & Co., 25 Broad st., New York 4.

Pertinent Comparative Data on Leading Industrial Common Stocks and Guide for Tax Switches. November 7.

Vilas & Hickey, 49 Wall st., New York 5.

Missouri Pacific Reorganization. December 3.

Railroad Securities. December 19.

St. Louis-San Francisco Ry. Co. November 28.

RAILWAY OFFICERS

EXECUTIVE

T. L. Peeler, Jr., assistant to president of the MISSOURI-KANSAS-TEXAS at St. Louis, will be transferred to Dallas, Tex., as personal assistant to the president.

As reported in *Railway Age* November 24, page 68, **Ben G. Spears** has been promoted to assistant to vice-president—traffic of the SOO LINE at Minneapolis. Mr. Spears was born at Minneapolis on January 6, 1906, and entered railroad service as an office boy with the Soo Line on September 20, 1920, later serving in various clerical positions, including that of chief clerk in the commercial office at Minneapolis. He was appointed general agent at Spokane, Wash., in May 1938,

Ben G. Spears

transferring to Seattle in January 1939. Mr. Spears became district freight agent at Duluth in July 1941, assistant general freight agent at Duluth in January 1945, general freight agent at Minneapolis in June 1946, and assistant freight traffic manager at Minneapolis in February 1949.

F. L. Foster has been named assistant to president of the PITTSBURGH & LAKE ERIE at Pittsburgh, as reported in *Railway Age* December 1, page 106. Mr. Foster was born at McDonald, Pa., on October 7, 1888, and began his railroad career on July 24, 1905, as a clerk with the P&LE. He served as chief clerk from 1917 to 1928, when he was named assistant superintendent of freight transportation. Mr. Foster

F. L. Foster

became superintendent of freight transportation on November 1, 1930, holding that post until March 1, 1946, when he was appointed superintendent. He became assistant general manager on October 1, 1949, which position he held until his recent appointment as assistant to the president.

W. Mason King, assistant vice-president (traffic) of the SOUTHERN, has been elected vice-president in charge of traffic, with headquarters as before at Washington, D.C., succeeding **Elmer R. Oliver,** who will retire on January 1, 1953, at his own request, after 54 years of service with the road, including 28 years as vice-president in charge of traffic.

FINANCIAL, LEGAL & ACCOUNTING

As reported in *Railway Age* December 1, page 107, **Joseph Rosch** has been appointed general counsel of the DELAWARE & HUDSON at Albany, N.Y. Judge Rosch was born at Wurtsboro, N.Y., on December 9, 1879, and attended the University of Buffalo (LL.B., 1900). He entered railroad service in 1904 as local attorney for

Joseph Rosch

the New York, Ontario & Western and served in that capacity until November 1921, when he was elected a justice of the New York Supreme Court. On December 1, 1927, he resigned from the bench and became counsel for the D&H, in which capacity he served until he was appointed general counsel.

F. W. Kernaghan, general claims agent of the CANADIAN PACIFIC at Winnipeg, has retired. In 1913, after seven years of service with the Great Northern of Ireland, Mr. Kernaghan joined the CPR's claims department at Winnipeg. In 1932 he became district claims agent at Vancouver, and, in 1944, general claims agent at Winnipeg.

William L. Hudson, secretary and auditor of the CHICAGO & WESTERN INDIANA and the BELT RAILWAY OF CHICAGO, will retire on December 31, after 36 years of service. **John R. Ekholm** has been elected secretary and **Irwin A. Schilke** has been elected auditor of the two roads. **Alfred Schmidt** has been elected assistant

that, "in order to facilitate the transition," it will publish this month's indexes on both the 1935-39 base and the new 1947-49 base. Also, the "U.S. all-items" index of the new series will be published on both bases throughout 1953.

Amortization Certificates

Certificates of necessity for accelerated tax amortization of facilities were granted to 20 railroads during the period from November 13 through December 3, the Defense Production Administration has announced.

Roads receiving the fast write-off certificates are listed below, together with the amounts approved by D.P.A. and the percentages of those amounts which can be written off in five years.

Atlanta & West Point, $155,000, 55 per cent.
Atlantic Coast Line, $150,417, 70 per cent.
Baltimore & Ohio, $6,446,178, 55 per cent.
Chesapeake & Ohio, $1,499,050, 40 per cent.
Chicago & Eastern Illinois, $525,000, 70 per cent; and $144,000, 40 per cent.
Denver & Rio Grande Western, $130,601, 50 per cent.
Great Northern, $7,781,550, 55 per cent.
Illinois Central, $130,064, 40 per cent.
Lake Superior & Ishpeming, $347,300, 40 per cent.
Lehigh Valley, $760,000, 70 per cent.
Louisville & Nashville, $150,418, 70 per cent.
Norfolk & Western, $1,100,000, 50 per cent.
Oregon Electric, $48,401, 40 per cent.
Patapsco & Back Rivers, $930,000, 50 per cent.
St. Louis Southwestern, $28,000, 70 per cent.
Seaboard Air Line, $807,850, 50 per cent; and $182,178, 40 per cent.
Southern, $38,422, 50 per cent; and $433,958, 40 per cent.
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subsidiary under the Roebling name. Net depreciated value of fixed assets being purchased is about $23,500,000 and the current value of inventories is approximately $17,500,000. Purchase will be financed in part by private placement with a group of insurance companies of $15,000,000 of the Colorado Fuel & Iron subsidiary's first mortgage bonds. As part of the transaction, Colorado Fuel & Iron will sell privately $10,000,000 of its series B cumulative preferred stock, and, to provide additional working capital, will offer publicly about $5,000,000 of its common stock.

The following appointments, effective January 1, have been announced by the **Johns-Manville Corporation's** Industrial Products division: **Don L. Hinmon,** assistant to general manager; **A. J. Bette,** product manager for friction materials; **E. H. Wells,** assistant to merchandise manager; and **G. R. R. Wahl,** assistant product manager for Transite pipe.

The new addition to the **Taylor Fibre Company's** Norristown, Pa., plant is nearing completion. When completed, total floor space available at the plant will be increased by over 20 per cent.

John K. Dustman has been appointed manager of export sales in the New York office of the **Youngstown Sheet & Tube Co.,** to succeed the late **Walter A. Davis.**

Production of alloys has begun at the new $2,500,000 plant of the **Vanadium Corporation of America** near Cambridge, Ohio. At present, the plant's activities are confined largely to manufacture of aluminum alloys. An office building and a laboratory are under construction at the site. A pilot plant for experimental work in aluminum and alloy metal production is scheduled to be built. An addition also is being made to the company's Graham, W. Va., plant at an estimated cost of $3,500,000, to permit production of very low carbon ferro-chrome.

George T. Bevan has been appointed manager of Alco-GE locomotive surveys in the **General Electric Company's** Transportation department at Schenectady, N.Y. Mr. Bevan succeeds Rudolph D. Krape,

George T. Bevan

who has retired. Mr. Bevan came to G.E. in 1941 from the Denver & Rio Grande Western, where he did engineering studies for the chief engineer of research and testing.

EQUIPMENT AND SUPPLIES

LOCOMOTIVES

RRs Installed 2,865 Power Units in First 11 Months

Class I railroads put 2,865 motive power units in service during the first 11 months of 1952, compared with 3,221 power units installed in the comparable 1951 period, the Association of American Railroads has announced. Motive power installed in this year's first 11 months included 2,840 diesel units and 17 steam, one twin-unit electric, and six gas turbine electric locomotives. In the first 11 months of 1951 motive power installations included 3,198 diesel units and 17 steam and three twin-unit electric locomotives.

November 1952 installations included 196 diesel units and two steam locomotives, compared with November 1951 installations of 289 diesel units and one steam and one electric locomotive.

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SIGNALING

The **Baltimore & Ohio** has ordered from the General Railway Signal Company equipment for installation of a relay interlocking at Chicago.

The **Fort Worth & Denver** has ordered from the General Railway Signal Company equipment for installation of a traffic control system between Wichita Falls, Tex., and Estelline, 123 miles.

ABANDONMENTS

Norfolk Southern.—The I.C.C. has reversed its Division 4 by refusing to permit this road to abandon a 6.2-mile line between Plainview, N.C., and Ellerbe (*Railway Age*, May 12, page 79, and September 15, page 98).

The commission divided 6 to 5 on the issue, with Commissioners Lee, Johnson, Mitchell, Knudson and Elliott dissenting. Division 4's original report in the case was likewise divided, two members favoring the abandonment and one, Commissioner Mahaffie, against it.

"In view of the present and prospective ability of the public to supply a substantial volume of traffic to the segment, and the minor savings that the system might realize if the 6.22 miles is abandoned, and because the adverse effects upon the shippers would outweigh any disadvantages which might accrue to the NS, we cannot accept the division's finding . . . ." the commission majority said in the new report.

North Carolina state agencies joined with shippers along the segment in opposing the abandonment. These groups requested the entire commission to review Division 4's findings, which ultimately resulted in reversal of the division.

Application has been filed with the I.C.C. by:

LONGVIEW, PORTLAND & NORTHERN.—To abandon its line from Ryderwood, Wash., to a connection with the Northern Pacific at Vadar Junction, approximately 7 miles. The LP&N also wants to abandon operations over an additional 24 miles of line owned by other roads, extending from Vadar Junction to Longview. Timber resources at Ryderwood have been exhausted, and there is no further need for rail service, the road said.

Division 4 of the I.C.C. has **authorized:**

ATLANTIC COAST LINE.—To abandon its branch line from Washington, N. C., to Vandemere, 39.6 miles. Division 4 overruled objections of local shippers and found it "apparent" that there is insufficient traffic available to permit profitable operation of the line.

GREAT NORTHERN.—To abandon its branch line extending from Kila, Mont., to Hubbard, approximately 20.2 miles. Operations during the past several years have resulted in large system deficits, Division 4 said.

READING.—To abandon a 1.5-mile segment at the end of its Laurel Run branch in Schuylkill county, Pa.

ST. JOSEPH & GRAND ISLAND—UNION PACIFIC.—To abandon a 6.8-mile branch line extending from Stout, Kans., to Highland. The line is owned by the StJ&GI, but is leased and operated by the UP. In 1942 the I.C.C. refused to approve this abandonment. Predictions of increased traffic made at that time failed to materialize, Division 4 said in its present report.

CONSTRUCTION

Greater Baton Rouge Port Commission.—This newly-created agency has applied to the I.C.C. for authority to construct and operate a Port Terminal Railroad, consisting of approximately five miles of rail line between Port Allen, La., and the Mississippi River. The commission was established to operate docks and port facilities on the west bank of the Mississippi at Baton Rouge, La. The proposed rail line would be the connecting link between such port facilities and line-haul railroads operating in the Baton Rouge area. Cost of the 5-mile line is estimated at $365,000. The commission has authority to issue bonds to finance construction of the line.

Missouri Pacific.—Expenditure of $13,825,140, of which $8,381,910 will be charged to this road's capital account for betterments and improvements during 1953, has been authorized by the United States District Court at St. Louis. The program for 1953 primarily calls for renewal of facilities carrying capital improvement charges. A major item in the program provides for placement of about 200 miles of new and heavier rail in principal main line trackage. Other improvements include modernization of switching yards and terminal facilities, renewal of bridges, and extension of radio and centralized traffic control equipment.

FINANCIAL

Boston & Maine. — *Trackage Rights.*—The agreement under which this road operates over Boston & Albany trackage between Forest Lake, Mass., and Creamery, has been modified to increase rental payments. Division 4 of the I.C.C. has approved the change. The present rental of approximately $1.12 per train-mile will be increased to around $2.69 per train-mile, depending on traffic volume and other factors. The B&M has used this 11.1-mile segment of the B&A for several years.

Chesapeake & Ohio. — *Trackage Rights.*—Division 4 of the I.C.C. has authorized this road to discontinue use of 11.3 miles of Illinois Central trackage at Chicago. The C&O has used the IC line, between Burnside and the South Water Street freight station, since 1920; but recently has operated only one train in each direction daily. The C&O plans to use the so-called Lumber Street freight station in place of the South Water Street facilities. The Pere Marquette, now a part of the C&O, leases the freight house and team tracks on Lumber Street. By "consolidating" all its business here the C&O expects to save an estimated $292,320 annually in operating expenses.

Chicago, Burlington & Quincy. —*Acquisition.*—Division 4 of the I.C.C. has authorized this road to acquire direct ownership of the properties now held by a wholly-owned subsidiary, the Kansas City & Brookfield (*Railway Age*, November 10, page 72). The KC&B was chartered in 1949 to construct a 42.6-mile segment of the Burlington's cut-off route between Chicago and Kansas City, Mo. Construction of the segment was completed in October, and the Burlington is dissolving the separate company.

Omaha, Lincoln & Beatrice.—*Trackage Rearrangement.*—The I.C.C. has authorized this road to abandon its so-called switch spur at Lincoln, Neb. To provide full substitute service in the affected area, the road will construct a 400-foot connecting track, and will lease another spur line, approximately 1.8 miles, from the Chicago, Rock Island & Pacific. The 3-mile switch spur runs through a densely populated residential area, with many grade crossings. Abandonment of this line and use of the other trackage will enable the road to provide "faster, better, safer and less costly" service.

Seaboard Air Line.—*Stock Option Plan Approved.*—Division 4 of the I.C.C. has authorized this road to issue 40,000 shares of common stock under a proposed "Restricted Stock Option Plan" (*Railway Age*, December 1, page 105). SAL directors already have approved the plan, and the road's stockholders will vote on the proposal at a December 29 meeting.

Purpose of the plan is to provide means by which key employees may obtain a proprietary interest in the road and strengthen their desire to remain in its employ. A committee from the board of directors will administer the plan, and will select officers and employees eligible to participate. Top option for any one individual will be 5,000 shares. Stock purchased under an option will be priced at full market value as of the day the option is granted. The stock option plan is scheduled to terminate March 31, 1958.

Southern Pacific.—*To Call Debentures.*—The SP will call for redemption on January 28, 1953, its outstanding 3 per cent convertible debentures due April 1, 1960. The call price will be 101½, plus accrued interest to the redemption date. Each $100, principal amount, of debentures is convertible into four shares of the company's common stock upon payment of $2.50 for each share of stock to be issued, which is the equivalent of a conversion price of $27.50 per share. The conversion right will expire at the close of business January 23, 1953.

Terminal Association of St. Louis.—*Acquisition.*—The association has obtained authority from the I.C.C. to acquire direct ownership of the rail lines and other facilities of the St. Louis Terminal Railway Company. The association owns all capital stock of the terminal company, and will surrender such stock for cancellation. The separate company will be dissolved. The terminal company property has been operated by the association under a lease arrangement. Elimination of the separate company will mean savings in taxes and other expenses for the association.

New Securities

Division 4 of the I.C.C. has **authorized:**

ALLEGHANY CORPORATION.—To issue up to $10,000,000 of 5 per cent debentures for use in acquiring, through exchange, a like amount of 5½ per cent series A preferred stock. Alleghany wants to reduce its series A preferred shares outstanding, thus wiping out large dividend arrearages. The series A stock obtained by Alleghany will be retired (*Railway Age*, October 13, page 169).

The new debentures, with provisions for sinking fund payments, will mature November 1, 1962. They will carry warrants entitling the holders to purchase 2,000,000 shares of Alleghany common at $3.75 a share The I.C.C. granted Alleghany authority to issue the 2,000,000 shares of new common stock.

NEW YORK, CHICAGO & ST. LOUIS.—To assume liability for $2,430,000 of equipment trust certificates, to finance in part 25 diesel-electric locomotive units costing an estimated $3,037,877 (*Railway Age*, December 1, page 105). Division 4 approved sale of the certificates for 99.709 with interest at 2⅞ per cent—the bid of Halsey, Stuart & Co and one associate—which will make the average annual cost of the proceeds to the road approximately 2.94 per cent. The certificates, dated January 1, 1953, will mature in 15 annual installments of $162,000 each, beginning October 1, 1953. They were reoffered to the public at prices yielding from 2.2 to 2.95 per cent, according to maturity.

SEABOARD AIR LINE.—To assume liability for $5,700,000 of series M equipment trust certificates, to finance in part 31 diesel units and 600 freight cars costing an estimated $7,578,200 (*Railway Age*, November 24, page 65). Division 4's report approved sale of the certificates for 99.5216 with interest at 2⅞ per cent—the bid of Salomon Bros. & Hutzler and three associates—which will make the average annual cost of the proceeds to the road approximately 2.95 per cent. The certificates, dated December 1, 1952, will mature in 30 semiannual installments of $190,000 each, beginning June 1, 1953. They were reoffered to the public at prices yielding from 2.1 to 3 per cent, according to maturity.

Security Price Averages

	Dec. 22	Prev. Week	Last Year
Average price of 20 representative railway stocks	70.38	69.00	53.33
Average price of 20 representative railway bonds	95.60	95.72	89.76

Dividends Declared

LAKE SUPERIOR & ISHPEMING.—35¢, quarterly, paid December 20 to stockholders of record December 8.

MAINE CENTRAL.—6% prior preferred, $1.50,

quarterly, payable January 2, 1953, to stockholders of record December 26.

NORFOLK & WESTERN.—4% adjustment preferred, 25¢, quarterly, payable February 10, 1953, to stockholders of record January 15.

NORTHERN CENTRAL.—$2, semiannual, payable January 15, 1953, to stockholders of record December 31.

WHEELING & LAKE ERIE.—4 per cent prior lien, $1, quarterly, and common, $1.43¾, quarterly, both payable February 2, 1953, to stockholders of record January 16.

Investment Publications

[The surveys listed herein are for the most part prepared by financial houses for the information of their customers. Knowing that many such surveys contain valuable information, *Railway Age* lists them as a service to its readers, but assumes no responsibility for facts or opinions which they may contain bearing upon the attractiveness of specific securities.]

Dreyfus & Co., 50 Broadway, New York 4.

Alleghany Corporation. December 9.

Fahnestock & Co., 65 Broadway, New York 6.

Baltimore & Ohio Railroad Co. Weekly Review, December 8.

Cyrus J. Lawrence & Sons, 115 Broadway, New York 6.

The Chesapeake & Ohio Railway Company. A 47-page detailed study.

Smith, Barney & Co., 14 Wall st., New York 5.

Baltimore & Ohio Railroad Company. 4% Non-Cumulative Preferred Stock. Railroad Bulletin No. 114, December 9.

The Problems of the Eastern Railroads. Address delivered by Walter F. Hahn before the Eastern Regional Conference sponsored by the New York Society of Security Analysts on November 24, 1952. Railroad Bulletin No. 115, December 10.

Railroad Earnings. Railroad Bulletin No. 113, December 5.

Spencer Trask & Co., 25 Broad st., New York 4.

Pertinent Comparative Data on Leading Industrial Common Stocks and Guide for Tax Switches. November 7.

Vilas & Hickey, 49 Wall st., New York 5.

Missouri Pacific Reorganization. December 3.

Railroad Securities. December 19.

St. Louis-San Francisco Ry. Co. November 28.

RAILWAY OFFICERS

EXECUTIVE

T. L. Peeler, Jr., assistant to president of the MISSOURI-KANSAS-TEXAS at St. Louis, will be transferred to Dallas, Tex., as personal assistant to the president.

As reported in *Railway Age* November 24, page 68, **Ben G. Spears** has been promoted to assistant to vice-president—traffic of the SOO LINE at Minneapolis. Mr. Spears was born at Minneapolis on January 6, 1906, and entered railroad service as an office boy with the Soo Line on September 20, 1920, later serving in various clerical positions, including that of chief clerk in the commercial office at Minneapolis. He was appointed general agent at Spokane, Wash., in May 1938,

Ben G. Spears

transferring to Seattle in January 1939. Mr. Spears became district freight agent at Duluth in July 1941, assistant general freight agent at Duluth in January 1945, general freight agent at Minneapolis in June 1946, and assistant freight traffic manager at Minneapolis in February 1949.

F. L. Foster has been named assistant to president of the PITTSBURGH & LAKE ERIE at Pittsburgh, as reported in *Railway Age* December 1, page 106. Mr. Foster was born at McDonald, Pa., on October 7, 1888, and began his railroad career on July 24, 1905, as a clerk with the P&LE. He served as chief clerk from 1917 to 1928, when he was named assistant superintendent of freight transportation. Mr. Foster

F. L. Foster

became superintendent of freight transportation on November 1, 1930, holding that post until March 1, 1946, when he was appointed superintendent. He became assistant general manager on October 1, 1949, which position he held until his recent appointment as assistant to the president.

W. Mason King, assistant vice-president (traffic) of the SOUTHERN, has been elected vice-president in charge of traffic, with headquarters as before at Washington, D.C., succeeding **Elmer R. Oliver,** who will retire on January 1, 1953, at his own request, after 54 years of service with the road, including 28 years as vice-president in charge of traffic.

FINANCIAL, LEGAL & ACCOUNTING

As reported in *Railway Age* December 1, page 107, **Joseph Rosch** has been appointed general counsel of the DELAWARE & HUDSON at Albany, N.Y. Judge Rosch was born at Wurtsboro, N.Y., on December 9, 1879, and attended the University of Buffalo (LL.B., 1900). He entered railroad service in 1904 as local attorney for

Joseph Rosch

the New York, Ontario & Western and served in that capacity until November 1921, when he was elected a justice of the New York Supreme Court. On December 1, 1927, he resigned from the bench and became counsel for the D&H, in which capacity he served until he was appointed general counsel.

F. W. Kernaghan, general claims agent of the CANADIAN PACIFIC at Winnipeg, has retired. In 1913, after seven years of service with the Great Northern of Ireland, Mr. Kernaghan joined the CPR's claims department at Winnipeg. In 1932 he became district claims agent at Vancouver, and, in 1944, general claims agent at Winnipeg.

William L. Hudson, secretary and auditor of the CHICAGO & WESTERN INDIANA and the BELT RAILWAY OF CHICAGO, will retire on December 31, after 36 years of service. **John R. Ekholm** has been elected secretary and **Irwin A. Schilke** has been elected auditor of the two roads. **Alfred Schmidt** has been elected assistant

auditor of the C&WI and **Clarence L. Holt** has been elected assistant auditor of the Belt.

William C. Carrick, comptroller of the RICHMOND, FREDERICKSBURG & POTOMAC at Richmond, Va., will retire on January 1, 1953, at his own request, after more than 51 years of service. **Leland L. Miller,** general auditor at Richmond, will take over duties and responsibilities pertaining to the accounting department. Mr. Carrick was born at Oregon, Ill., on March 17, 1883, and entered railroad service on September 18, 1901, with the RF&P, serving successively as assistant chief clerk, special accountant, chief accountant, assistant auditor and corporate auditor. He was appointed general auditor on March 1, 1920, and became comptroller on April 15, 1948.

William C. Carrick

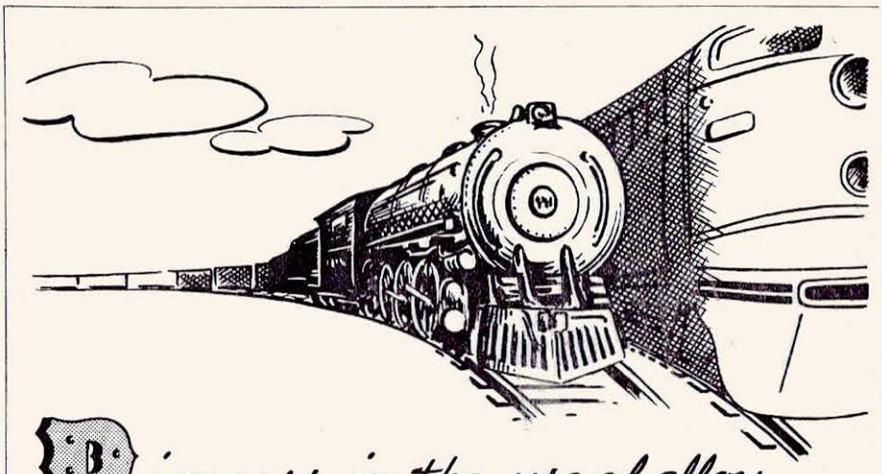
Alan T. Danver, executive assistant of the RUTLAND at Rutland, Vt., has been named treasurer, effective January 1, 1953. Mr. Danver was born at Stamford, Conn., on June 21, 1893, and was graduated from Tufts College (B.S. in C.E., 1915). He entered railroad service in 1915 as assistant bridge inspector with the Boston & Maine and later served the Boston & Albany as draftsman, structural designer and assistant engineer, successively. Mr. Danver joined the Rutland in 1925 as an engineering assistant and was appointed principal assistant engineer in 1927, principal assistant valuation engineer in 1931, chief engineer in 1938, and executive assistant in October 1951. Mr. Danver will continue the duties of the latter position in addition to his new duties as treasurer.

Alan T. Danver

J. L. Meador, auditor of the COLUMBUS & GREENVILLE at Columbus, Miss., will retire on December 31, after more than 30 years of service with that road. **William E. Roberts,** secretary and treasurer, will assume also the duties of auditor.

OPERATING

Tony Tagliafer, superintendent maintenance of way of the MONONGAHELA CONNECTING, has been appointed assistant to general superintendent, with headquarters as before at Pittsburgh. In his new position Mr. Tagliafer will direct the personnel department, which includes the following functions: Employment, safety, training, civil defense, and labor relations. **Nevin Harris,** trainmaster,



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has been appointed superintendent of transportation. **Harry Geyer,** assistant trainmaster, has been appointed trainmaster.

Albert W. St. Clair, superintendent of the SOUTHERN at Knoxville, Tenn., has been appointed general manager, Eastern lines, at Charlotte, N.C., succeeding **George W. Adams,** who will retire on January 1, 1953, after 52 years of service. **William H. Moore,** trainmaster at Asheville, N.C., has been appointed superintendent of the Charleston division at Charleston, S.C., succeeding **Henry R. Moore,** who has been transferred to the Washington division at Alexandria, Va., to replace **Lonnie I. McNutt,** appointed superintendent at Knoxville. **Joseph G. Matthews, Jr.,** trainmaster at Atlanta, Ga., has been transferred to Greensboro, N.C., succeeding **Donald D. Strench.**

Mr. St. Clair was born at Macon, Ga., on June 17, 1912, and received his higher education at the University of Tennessee (B.S., 1933). He entered

Albert W. St. Clair

the service of the Southern as a student apprentice at Knoxville in October 1937 and subsequently served as assistant track supervisor. He was appointed trainmaster of the Atlanta division in November 1939, assistant superintendent of the Knoxville division in February 1946 and superintendent of the Appalachian division at Bristol, Va.-Tenn., in March 1947. Mr. St. Clair transferred to Ashville, N.C., in May 1948; to Greensboro in 1951, and to Knoxville in January 1952.

TRAFFIC

C. R. Lennig has been appointed general agent of the DENVER & RIO GRANDE WESTERN at Sacramento, Cal., succeeding **Hugh I. Scofield,** deceased.

As *Railway Age* reported on November 3, **T. J. Younker,** general freight agent of the BALTIMORE & OHIO at Cincinnati, has been named assistant freight traffic manager at that point. Mr. Younker entered railway service in 1918 as a clerk in the auditor of disbursements' office at Baltimore. In 1926 he transferred to the traffic department and advanced through a series of secretarial and rate clerk positions to become manager of the mail, express and baggage department at Baltimore in 1950. During the following year he was promoted to general freight agent at Cincinnati.

J. R. Brennan, assistant passenger traffic manager of the CHICAGO & NORTH WESTERN, has been appointed passenger traffic manager. He succeeds **Harvey C. Duvall,** whose death was reported in *Railway Age* November 3.

J. R. Brennan

Mr. Brennan started his railroad career as a relief agent and telegrapher with the North Western in Iowa in 1926. In 1935 he transferred to the passenger traffic department, where he served as passenger agent, tour escort, city agent and tour agent. In 1937 he was appointed city agent at Cincinnati. Four years later he went to Detroit as traveling agent and in 1945 returned to Chicago as assistant to passenger traffic manager. In 1947 he was promoted to assistant passenger traffic manager.

As reported in *Railway Age* November 10, page 73, **Albert L. Postlethwaite** has been appointed general freight agent in charge of sales and service of the CENTRAL OF NEW JERSEY at New York. Mr. Postlethwaite was born at Elizabeth, N. J., on April 27, 1908, and entered railroad service on August 30, 1929, as clerk in the New York lighterage department of the CNJ. After serving as chief clerk to general eastern and foreign freight agent and to assistant freight traffic manager at New York, he was appointed chief clerk to vice-president (freight traffic) on May 1, 1941. He became assistant to general freight agent at New York on April 16, 1945, assistant general agent at Long Branch, N. J., on January 2, 1947, division freight agent at Long Branch on May 1, 1947, and general foreign freight agent at New York on August 16, 1948.

Charles A. Sturtevant has been appointed general freight agent of the NORFOLK SOUTHERN at Norfolk, Va.

C. A. L. Mansbridge, industrial agent of the CANADIAN PACIFIC, has been appointed industrial commissioner, with headquarters as before at London, England, succeeding **H. R. F. Kingscote,** who has retired after 42 years of service.

J. C. McCloy has been appointed district passenger agent of the LOUISVILLE & NASHVILLE at Louisville, Ky., succeeding **E. Gaar Jones,** who will retire from active duty on January 1, 1953, after more than 55 years of continuous service with the L&N.

Henry F. Heck has been appointed general agent of the ERIE at Washington, D.C., succeeding **William J. Murray,** who will retire on December 31, after 40 years of service.

Clayton Anderson, assistant general freight agent of the GULF, MOBILE & OHIO at Mobile, Ala., has retired at his own request, after 46 years of continuous service.

Thomas B. Miller, commercial agent of the MISSISSIPPI CENTRAL, has been named general agent at Los Angeles.

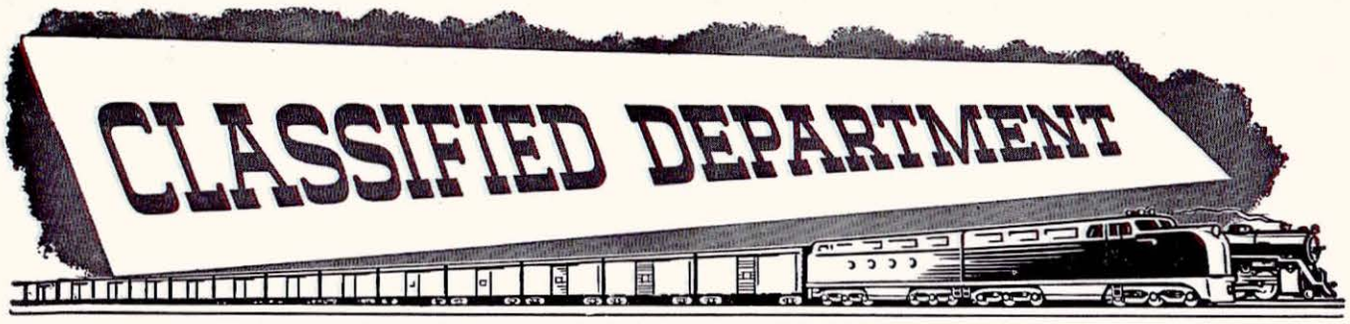
Frank J. Zika, assistant general freight agent of the SOUTHERN PACIFIC at Portland, Ore., has been promoted to the newly created position of general freight agent, at Portland. Mr. Zika joined the SP as a rate clerk at Portland in 1927, being named chief rate clerk in 1942. In 1943 he moved to San Francisco as commerce agent, returning to Portland in 1950 as assistant general freight agent.

Raymond W. Wolke has been appointed general passenger agent—station services, of the NEW YORK CENTRAL at Cleveland, a new system-wide position. Mr. Wolke will watch over ticket selling practices at stations, baggage checking, Red Caps, taxi service and other passenger services, with a view to maintaining those functions at the highest possible level. Mr. Wolke, who is 51 years old, is a native of Toledo, Ohio. He joined the Central in 1919 at Toledo, transferring to Cleveland in 1921 as ticket salesman. He served as city passenger agent and ticket agent at East Cleveland before becoming ticket agent at Cleveland Union Terminal in 1940.

OBITUARY

Stephen E. Shoup, retired special representative of the president, of the KANSAS CITY SOUTHERN, died on December 12 at Kansas City.

Rex Bostwick, 63, who retired in January 1950 as purchasing agent and general storekeeper of the MONON, died on December 5 at Lafayette, Ind.



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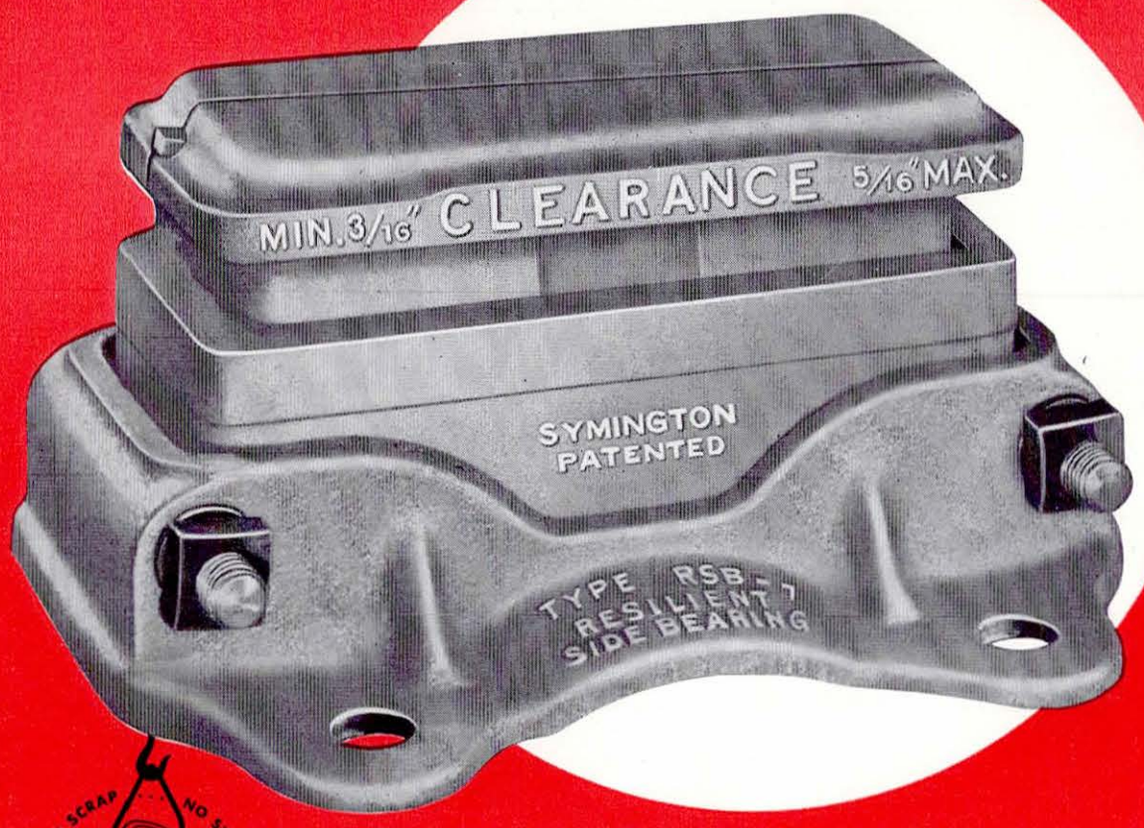

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